FILE COPY
AUG 29 1957

HOME SAFETY Review

Vol. 14, No. 7 - SEPTEMBER 1957

73

MARKED COPY

The Home Safety Inventory Committee meets with G. C. Stewart. page 4.

IN THIS ISSUE:

Conference Develops Tentative Uniform Definitions—a Manual
Page 13

HOME SAFETY CONFERENCE

Chairman, JOHN C. THORNTON, chairman, Committee on Human Safety, American Institute of Architects, Royal Oak, Mich.

Chairman-elect, MRS. GEORGE WELLES, JR., St. Louis County (Minn.) Safety Council, Duluth, Minn.

Vice chairman, Community Service Groups Section, MISS MARY M. WEEKS, health and safety adviser, Girl Scouts of the U.S.A., New York, N. Y.

Vice chairman, Health and Medical Section, ROBERT H. KOTTE, M.D., American Academy of Pediatrics, Cincinnati, Ohio.

Acting vice chairman, Home Building and Equipment Section, E. J. HERRINGER, sanitary engineer, Region V, U. S. Public Health Service, Chicago, Ill.

Staff secretary, THOMAS FANSLER, director, Home Safety Division, National Safety Council, Chicago, Ill.

●

The Home Safety Conference is the meeting point for representatives of national organizations conducting programs that include prevention of accidents in the home. It officially represents National Safety Council home safety service subscriber-members. Conference officers (with the exception of the staff secretary) serve voluntarily without pay as the council's safety officers and planning board for home safety program.

National Safety Council
Chartered by the Congress of the United States

Reg. U.S. Pat. Off.

HOME OFFICE
425 North Michigan Avenue
Chicago 11, Ill.

EASTERN OFFICE
Room 733, Lincoln Building
60 East 42nd Street
New York 17, N. Y.

WESTERN OFFICE
Room 250, 703 Market Street
San Francisco 3, Calif.

HOME SAFETY REVIEW

A Magazine for Home Safety Program Leaders

VOL. 14 **NO. 7**

SEPTEMBER 1957

FEATURE ARTICLES

Home Safety Sessions 3
The Scope of the '56 Inventory, *Philip Dykstra* 4
Teaching Safety at Dunbar High, *C. W. Seay* 6
At Wilson Memorial High, *R. A. McChesney* 9
Formula for a Fire Problem 10
Conference Develops Tentative Uniform Definitions 13
Radio Script from Ohio 18
Safe "Witches" and "Goblins" 19
The Basement 20
Proper Use of Portable Heater 21
Home Fire Drills 22
Emergency Care of Childhood Skeletal Trauma and Burns 23
Spot Announcements 24
Eisenhower Urges Scouts' Safety Good Turn Project 25
Forecasting the Next 5 Years, *Otis L. Anderson, M.D.* 25
Fatal Home Accidents 32

MRS. ELIZABETH REED, editor
RALPH KUHLI, associate editor, health and medical
GORDON O'NEILL, associate editor, home building and off-the-job
JOHN MUNROE, artist
NORVAL BURCH, editorial director, National Safety Council publications

●

The HOME SAFETY REVIEW is published monthly (except July and August) by the National Safety Council, 425 North Michigan Avenue, Chicago 11, Ill. Copyright 1957 by the National Safety Council. Printed in U.S.A. Price $.25 per copy, subscription $2.25 per year.
Statements and opinions advanced in signed articles are personal expressions of the authors, not necessarily those of the National Safety Council.

Chairman of the Trustees
W. S. S. RODGERS, former chairman, The Texas Co., New York, N. Y.

Chairman, Board of Directors
W. A. STEWART, trustee and former president, American Optical Co., Southbridge, Mass.

President
NED H. DEARBORN, Chicago, Ill.

Vice presidents:

For farms
KIRK FOX, editor, *Successful Farming*, Meredith Publishing Co., Des Moines, Iowa.

For finance, and treasurer
WILLIAM H. LOWE, treasurer, Inland Steel Co., Chicago, Ill.

For homes
GEORGE M. WHEATLEY, M.D., Metropolitan Life Insurance Co., New York, N.Y.

For industry
R. H. FERGUSON, assistant director, industrial relations, Republic Steel Corp., Cleveland, Ohio.

For labor
P. L. SIEMILLER, general vice president, International Association of Machinists, Chicago, Ill.

For local safety organizations
WALTER K. KOCH, president, Mountain States Telephone and Telegraph Co., Denver, Colo.

For membership
EDWARD C. MYERS, assistant vice president, United States Steel Corp., Pittsburgh, Pa.

For public information
BOYD LEWIS, vice president and executive editor, NEA Service, Inc., New York, N. Y.

For schools and colleges
LOWELL B. FISHER, Ph.D., state chairman, North Central Association of Colleges and Secondary Schools, Urbana, Ill.

For traffic and transportation
WALTER F. CAREY, president, Automobile Carriers, Inc., Flint, Mich.

For women's activities
MISS MARION E. MARTIN, commissioner of labor and industry, State of Maine, Augusta, Maine.

Executive vice president
G. C. STEWART, Chicago, Ill.

Secretary
R. L. FORNEY, Chicago, Ill.

45TH NATIONAL SAFETY CONGRESS
October 21-25, 1957
Chicago, Ill.

Home Safety Sessions

Monday evening, October 21
8:00 p.m. General Session, Waldorf Room, 3rd floor, Conrad Hilton Hotel

Discussion Moderator: Maurice F. X. Donohue, Dean, Univ. Col., Univ. of Chicago

HOW TO INTEREST PEOPLE IN WHAT THEY DON'T WANT TO KNOW

Panel (with audience participation)

VICTOR M. RATNER, vice pres., Benton & Bowles, Inc., New York, N. Y.

PIERRE MARTINEAU, mgr., Research & Presentation Div., *Chicago Tribune*

FAIRFAX M. CONE, chm. of Exec. Com., Foote, Cone & Belding, Chicago

Wednesday morning, October 23
9:30 a.m. General Session, Bel Air Room, 3rd floor, Conrad Hilton Hotel

Presiding: ROBERT H. KOTTE, M.D., chm., Health & Med. Sec., Home Safety Conf. and rep., Am. Acad. of Pediatrics, Cincinnati, Ohio

Symposium: The Need for Research in Home Accident Prevention

FAY M. HEMPHILL, PH.D., assoc. prof., School of Pub. Health, Univ., of Michigan, Ann Arbor

FLOYD A. VAN ATTA, PH.D., Industrial Hygienist, United Automobile Workers, Detroit

ALBERT P. ISKRANT, chief, Operational Research, Accident Prevention Program, Pub. Health Serv., Washington, D. C.

The Role of National Surgical Organizations in Public Safety

JAMES K. STACK, M.D., secy., Amer. Association for the Surgery of Trauma and member, Com. on Trauma, Amer. College of Surgeons, Chicago

The Accident Prevention Program of the Public Health Service

JAMES L. GODDARD, M.D., chief, Accident Prevention Program, Public Health Serv., Washington, D. C.

The 1956 Home Safety Inventory

A. F. SCHAPLOWSKY, chm., Invt. Com., Home Safety Conf. and Dir., Health Educ. Services, Kansas State Bd. of Health, Topeka

Wednesday afternoon, October 23
2:00 p.m. General Session, Room 18, 4th floor, Conrad Hilton Hotel

Presiding: NORMAN H. DAVIS, JR., exec. eng., Underwriters' Laboratories, Chicago

WE'RE BURNING UP

Home Fire Inspections by Fire Departments

(Representative of Internat. Association of Fire Chiefs, San Francisco, Calif.)

Community Fire Prevention Planning

E. W. FOWLER, dir. of Codes & Standards, Nat. Bd. of Fire Underwriters, New York, N. Y.

Let's Stop These Fire Deaths

PERCY BUGBEE, gen. mgr., Nat. Fire Protection Association, Boston, Mass.

Thursday morning, October 24
9:30 a.m. General Session, Bel Air Room, 3rd floor, Conrad Hilton Hotel

Presiding: HARRY H. BRAINERD, exec. mgr., Western Pennsylvania Safety Council, Pittsburgh

INDUSTRIAL APPROACHES TO HOME SAFETY

Home Injuries Hurt Industry Too

J. L. RIDINGER, dir., Safety & Plant Protection, Inland Steel Co., East Chicago, Ind.

Flexibility and Feedback—Programming for a Multilocation Operation

M. FRANCES DEVINE, personnel supervisor, Northwestern Bell Telephone Co., Des Moines, Iowa

Women's Safety Councils—the Best Way to the Men

J. H. WILLIAMS, supt. of safety, Texas & Pacific Railway Company, Dallas, Tex.

(Additional speaker to be announced)

Other Meetings of Interest to Home Delegates

Monday afternoon, October 21
2:00 p.m. School and College Session, Constitution Room, Morrison Hotel

"A Continuing Program of Education for Safer Living" will be the title of the keynote address. A series of short talks will follow on such subjects as school and fire safety, what the Boy Scouts' Safety Good Turn means to schools, safety through physical education, etc.

Tuesday morning, October 22
10:00 a.m. Farm Session (joint with youth), Mirror Room, Hamilton Hotel

EARL BUTZ, dean of agri., Purdue Univ., will speak on "Safety Makes Sense." A panel discussion will follow on the theme "Let's Work Together."

Tuesday afternoon, October 22
2:30 p.m. Women's Activities Session, Havana Room, Sheraton Blackstone Hotel

On the theme, "Women's Role in Safety Leadership," a panel discussion to be followed by discussion from the floor will cover such topics as traffic safety, home and child safety, and industrial and off-the-job safety.

THE NATIONAL REPORT *Home Safety Activities* of the 1956 Home Safety Inventory has now been compiled and printed. Copies are available on request from state and local inventory centers or directly from the Home Safety Division, National Safety Council. The following is a general summary of the geographical and organizational scope of the program summaries submitted. Future issues of the *Home Safety Review* will contain detailed analyses of the summaries from specific types of organizations. The new 1957 Home Safety Inventory Committee has already met to discuss future plans.

The Scope of the '56 Inventory

By Philip Dykstra

Senior Consultant
Home Safety Division
National Safety Council
Chicago, Ill.

NINETEEN HUNDRED and fifty-six marked an important milestone in the history of home safety. It witnessed the growth of the Home Safety Inventory into a tangible and constructive contribution to a national program to reduce the needless toll from home accidents throughout the Nation with a systematic attempt to obtain extensive and reliable information regarding current home safety activities.

A trial run of such an inventory had been made in 1955, and more than 600 reports were received in this initial effort. Recognizing the development of such a survey as a logical council function, the Home Safety Conference of the National Safety Council voted to continue the sponsorship of a Home Safety Inventory under the guidance of a special Inventory Committee. Financial assistance was afforded by a grant from the W. K. Kellogg Foundation.

Two staff members were added to the Home Safety Division to work on the project. Inventory centers were established in each of the 48 states, the District of Columbia, Hawaii, the Virgin Islands, 3 Canadian Provinces, and in over 100 communities throughout the Nation.

The 1956 Home Safety Inventory was developed with the dual objectives of ascertaining both "who's doing what in home safety" and of stimulating future home safety program activities. It sought to find out: (1) what organizations generally were most actively concerned with the problems of home accidents; (2) what types of activities were most frequently conducted by these organizations; (3) what community groups cooperated; (4) what determined the types of activities undertaken by an organization; and (5) whom these organizations attempted to reach through their efforts. If such information could be secured, helpful program suggestions and aids would be available to interested organizations throughout the country.

A *Program Summary Form* based on the above objectives was developed and reviewed by many home safety authorities, field tested, refined, and finally printed and distributed. Through the state and local Home Safety Inventory centers 85,000 copies were sent to clubs, organizations, industries, governmental agencies, fire departments, and similar organizations and groups throughout the Nation. By January 1957, the replies began to come in. They were coded and the data put on punch cards. When all centers had been heard from, a total of 4,127 organizations from every state, 4 Canadian provinces, the District of Columbia, the Virgin Islands, and Hawaii had submitted codable summaries of their 1956 home safety activities.

It is obvious that 4,127 program summaries do not begin to include all the home safety activities currently being conducted throughout the country. However, these program summaries do provide more information than ever before available about what *is* being done, and thus they do offer practices and suggestions which may be of assistance in future program planning. An idea of how representative the program summaries are can be gained by a brief geographical and organizational examination of the returns.

Scope of Returns

The organizations submitting reports represented all levels of action —national, state, local. A breakdown indicates that 145 summaries were submitted by organizations whose home safety programs were national in scope, 348 were from statewide organizations, 1,600 from groups which function on the county level, and 1,994 from clubs and organizations active on the community level. Forty organizations failed to indicate area of operation.

Geographical Distribution of Returns

Program summaries were received from organizations in every state. Virginia, with a total of 432, led all states in the total number of organizations submitting reports. Other states which received large numbers of program summaries are: New York, Arkansas, Minnesota, North Dakota, Pennsylvania, and Georgia.

Special mention should be made of the participation and extensive amount of time and work devoted to the 1956 Home Safety Inventory in the Province of Quebec under the direction of the Division of Health Education, Provincial Ministry of Health, Montreal. The inventory forms were translated into French by the Ministry, and copies distributed to groups throughout the Province. Seventy-one organizations replied to the survey, of which 44 submitted descriptions of their home safety activities. These were written in French and had to be translated back into English before being sub-

mitted to the National Safety Council. These reports are a valuable addition to the Home Safety Inventory.

Directors and volunteer workers of local inventory centers likewise contributed immeasurably to the success of the Inventory. Over 100 local organizations in 34 states agreed to conduct mailings of the forms to community organizations. The majority of these local centers were either safety councils or health departments.

Still further evidence of the widespread geographical participation in the Inventory can be gained from the fact that of the total of 3,068 counties in the United States, at least one program summary was received from at least one organization in 1,158 of them. This represents returns from 37.7 per cent of all counties. Five states obtained at least one program summary from an organization in every one of their counties. These states were: Virginia, Arkansas, Maryland, Connecticut, and Delaware. Twenty additional states received reports from organizations in over half of their counties.

Program Summaries by Organizations

Program summaries were obtained from over 55 separate types of clubs, groups, and organizations. Parent-teacher groups led all other organizations with a total of 609 of their member clubs submitting program summaries. Six hundred schools submitted reports, 556 home demonstration and agricultural extension service clubs, 425 local health departments, 279 fire departments, 236 businesses and industries, and 162 women's clubs. A complete breakdown of the returns by organizations will be found in the national report.

On the average, reports were received from 15 types of organizations per state. Nineteen state centers each secured program summaries from 20 or more separate types of organizations. New York was most successful on this score with reports from 38 types of organizations.

Without detracting in any way from the results obtained by any of the other state inventory centers, special mention is deserved by the following state centers: North Dakota, Virginia, Minnesota, Arkansas, New York, Kansas, Maryland, Georgia, Iowa, and Pennsylvania. These 10 state centers, in the order listed, ranked highest in the number of program summaries obtained, percentage of program summary forms completed, number of reports per population, number of organizations submitting reports, and percentage of counties in the state submitting at least one report.

Co 73

Members of the new 1957 Home Safety Inventory Committee are, left to right, Curtis B. Patterson, E. I. du Pont de Nemours & Co.; Clinton W. Dreyer, Eastbay Chapter, NSC; Mrs. Marjorie B. May, Greater New York Safety Council; G. C. Stewart, NSC, at a meeting with the committee; A. F. Schaplowsky, Kansas State Bd. Health; H. C. Steed, Jr., Georgia Dept. of Pub. Health; and R. P. Douglas, Detroit Edison Co.

Conclusions

Below are listed some of the more obvious conclusions of this '56 Inventory analysis:

1. Literally thousands of clubs and organizations throughout the country are interested and active in the problem of eliminating home accidents.

2. Through their efforts, millions of people are being reached and sensitized to the hazards involved in home living.

3. Most of these organizations realize the importance of making their efforts part of a continuous, long range program.

4. While many "channels" are being used to reach these publics, organizations must remain constantly alert to the potentials inherent in such informational media as television and radio and in the support available through industry's interest in off-the-job safety.

5. Although no serious problem has arisen as yet, the need for coordination of all these activities on both the local and state level is becoming more and more apparent.

6. While an educational approach is naturally most feasible for a home safety program, the engineering and enforcement aspects of the problem need more concerted attention by more organizations.

7. Direction of programs toward the "family at large" is most commendable; however, more specific attention to the accident problems of young children and of the elderly is an obvious "must."

8. Programs based more closely on the needs of the community are necessary if we are to keep abreast of current problems in home safety.

These, then, are a very few of the findings of the 1956 Home Safety Inventory. They have been presented in the hope that the reader will be motivated to secure and study the complete national report. If the Inventory, even to a small degree, brings the home safety picture into sharper focus, serves as a guideline for future activity in this field, and stimulates the development of increased activity in this field, it will have amply achieved its goal.

not rec'd

Teaching Safety AT

C. W. Seay

By C. W. Seay

Principal
Dunbar High School
Lynchburg, Va.

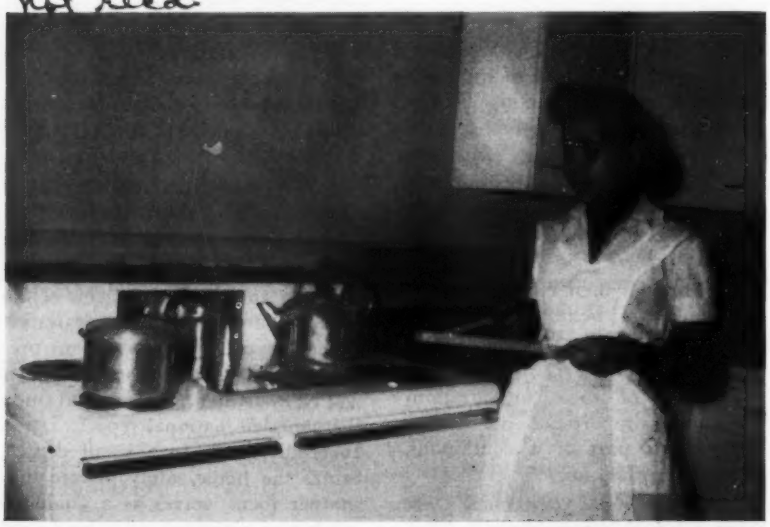
OUR HOME SAFETY activities were part of the program of work of the Science, Physical Education, and Homemaking Departments of Dunbar High School, Lynchburg, Va., during the school year 1956-57. The science and physical education teachers organized their activities around the unit, "Home Safety," and the homemaking teachers presented the material as part of a unit, "Sharing in Making Our Home Safe, Clean, and Attractive."

The units included: (1) classroom safety, (2) home safety, (3) child safety, and (4) safety for the aging. Special efforts were made to increase pupil awareness of accident hazards through the use of the film *Safety Begins at Home* and the filmstrip *Keeping Children Safe* and through discussions on home accidents due to negligence. We also distributed mimeographed material and poster displays. The homemaking unit pointed up the fact that projects aimed at making the home attractive and clean should take into account accident prevention.

Some of the more successful activities of the departments were:

Demonstrations.—Demonstrations were conducted on burning leaves and trash; storing paints and oily rags; observing safety measures in food preparation, clothing construction, laundering, and handling other equipment; administering first aid; and recognizing poisonous plants about the home.

not rec'd



—Photo by Edna E. Holmes

Angilee Ward demonstrates how to work safely in the foods laboratory. The pot handle is turned inward; the pot holder has just been rested on the top of the stove while she places the butcher's knife in a box before placing it in the student's work desk.

Distribution of Material.—Mimeographed drawings of home accidents with an attached score card for personal use were distributed. These were reproduced from the July 1955 issue of the *Virginia Health Bulletin.*

Construction of Articles.—Safe, easily cleaned children's toys were constructed as part of a "Child Care" unit, and home medicine chests were made from cigar boxes. These latter were used to display the proper storing and labeling of medicines.

Campaigns and Contests.—Class members located free materials on home safety from coupon sections of magazines and collected old jar rubbers and sewed them on the backs of scatter rugs to prevent skidding.

Diary of Home Accidents.—The students developed the form for and kept an accident diary for six weeks.

In the future we would like to extend our accident report over the entire year, devise some way of helping pupils secure materials for needed home repairs such as of steps and porches, and sponsor a safety fair.

The following is a description of work by a class group, a portion of the annual report of the class activities of the homemaking department of Dunbar High School, Lynchburg, Va.

MAKING SAFETY IN THE HOME A HABIT

Inherent in the purpose for the existence of Dunbar High School as stated in its philosophy is meeting the needs of its students. Since the homemaking department is the avenue through which the school attempts to carry out its purpose of contributing to improved home liv-

DUNBAR HIGH

ing in this community, the specific goal of that department can best be stated as "Better Home and Family Living." We believe better home and family living involves safe living; therefore, some consideration has been given to safety education from the inception of the program. While the homemaking department is not the only area of the school where safety is taught (the science and physical education departments give some attention to this problem), the very nature of the homemaking program enables it to give most attention and time to home safety.

Prior to the school year 1955-1956, we taught safety in homemaking as it cuts across subject matter lines. This instruction was done largely through discussion and notebook work and presented as we worked in the various areas in the form of warnings such as:

"Never connect the current when your hands are wet."

"WARNING! Be careful not to skid in a slippery bathtub. It is a good idea to put a nonskid rubber mat in the bathtub."

"Never hold a carrot, tomato, or other vegetable in your hand and try to slice it. The knife may slip and your hand will be sliced instead of the vegetable. Form the habit of laying the vegetable on a cutting board and cutting downward."

The effectiveness of incidental instruction in home safety was evaluated by observing students as they worked at school and at home, and by studying accident causes in their families. Their safety habits were found not to be satisfactory. It was then that we decided an organized unit of work on home safety might prove profitable. We began planning teaching materials around the unit suggested by the State Department of Education: "Sharing in Making Our Home Safe, Clean and Attractive."

Our new unit of work was introduced by showing the motion picture *Safety Begins at Home,* which we borrowed from the local film library. The film gives an excellent demonstration of how two safety-conscious teen-agers conducted a hazard hunt in their home. Immediately following the showing of the film, we developed the same type of project among our students. As a result, they reported 60 different safety hazards found existing in their homes. The hazards below have been taken from the reports of a sample class of 20 students. The 30 hazards reported most frequently have been included:

Safety Hazards Existing in Our Homes

Hazards	Number of Cases
Phone number of doctor and druggist not kept	20
Not using pot holders	18
Dishes carelessly placed in the cabinet	15
Sharp knives loose in drawers	15
Pans on the stove with handles outward	15
Children playing with unsafe toys	13
Using chairs and boxes to reach high places	13
Children's toys left on the floor	13
Hands of family members injured by the sewing machine	12
Medicine chest cluttered and improperly stocked	12
Too many appliances on one outlet	12
Last basement step not identified	11
Family members injured with the washing machine	10
Matches lying around carelessly	10
Not using nonskid mats for the bathtub	10
Touching electrical appliances with wet hands	9
Unlabeled medicines in the medicine chest	9
Poorly lighted basement stairs	8
Habit of walking in the dark	8
Children's beds too near the window	8
Tools left carelessly in the yard	8
Iron left on carelessly while doing other things	7
Step stools in need of repair	7
Scatter rugs without nonskid backings	6
Toys and other objects left on the stairs	6
Loose electric cords around the room	6
Boards with nails and other trash left in the basement	5
Using kerosene in making fires	5
Smoking in bed	5

After compiling the safety hazards found in the homes of students, we planned a series of safety demonstrations on the hazards reported most frequently or those considered easiest for the pupil to take the lead in correcting. Most of the demonstrations centered around housekeeping or home management problems; the others were part of "Child Care" and

—Photo by Edna E. Holmes

Phyllis Tinsley shows a safe way of carrying on her housekeeping chores by using a sturdy, metal constructed step stool to reach high places.

"Home Care of the Sick" units. Each demonstration was presented to the class first by the instructor and followed by a student demonstration. Below are a few of the more successful demonstrations and activities of students. Of the 20 students reporting, 12 indicated that some member of the family had been injured while using the sewing machine.

The kitchen is another danger spot in the home as evidenced by reported accidents or incorrect working habits. Our demonstrations covered the use of pot holders, the correct direction for turning pot handles while the pot is on the stove, putting away sharp knives, and washing sharp knives separately instead of dropping them into the dish water.

Falls have remained at the top of the list as causes for home accidents in the Nation. Falls were prevalent, also, in the homes of our students with the failure to use a stepladder being one of the major causes for such falls. The absence of a stepladder or the need of repair on the ones in use were reported by the entire class of 20 students. Thirteen families were reaching high places by standing on chairs, boxes or some other objects, and the remaining 7 had stepladders needing repair.

Fifty percent of the students reporting revealed that the washing machine is another safety hazard in their homes. (The wringer type is a special offender.) Family members have caught their clothes, fingers, and hair in the wringer, and they have been shocked by connecting and disconnecting the machine with wet hands.

The bathroom was reported a spot in the home where students and their families were not living safely. Ten indicated there was no care in putting poisons on the top shelves of the medicine chest out of the reach of children; nor otherwise identifying poisons for the safety of all the family. Twelve students thought their medicine chests needed to be cleaned and properly stocked; others had unlabeled medicines in their chests, and none of them had the telephone numbers of the doctor and druggist on the doors of their chests for ready use.

It is a recognized fact that many students of our school did not have medicine chests in their bathrooms. In some cases the absence of the chest was due to economic reasons, and in other cases the families were not sufficiently safety conscious to see the importance of the chest. In order to overcome both of these reasons, we have guided our students in constructing their own medicine chests from cigar boxes. Students secured the boxes from their homes or from stores, and woodshop students assisted them in putting shelves in the boxes. The girls then painted the boxes white and stood them on one end which gave the appearance of real medicine chests.

Small bottles were then purchased and labeled (about 1 fluid ounce) and the department furnished a sampling of medicine for each bottle. The chest was stocked in accordance with a recommended list from the student's textbook. The telephone numbers of the family doctor and the druggist were pasted on the chest door, and the door was fastened with a small hook. A small pocketbook mirror glued on the outside of the door gave a complete medicine chest appearance.

A part of our unit on "Child Care" dealt with the safety of small children. Special attention was given to the selection of safe, easily cleaned toys and the construction of some such toys by the students.

Aside from giving demonstrations and constructing articles, students have worked with a variety of materials that have helped to make them more safety conscious. One of our most valuable projects along this line has been the development of a booklet on home safety which contains drawings and score cards of various danger spots in the home. Some students working on this project were able to do excellent jobs of putting ideas into pictures, while others found it difficult to draw at all. Therefore, the specially talented students agreed to make sketches (with the aid of the *Virginia Health Bulletin,* July 1955) and have them mimeographed for the use of other students. The covers were exceptions; each student designed her own. We feel that the knowledge gained while working up the booklet has been a real source of information to the students and that the finished product may serve as a guide to families in correcting safety hazards in their homes.

Not rec'd.

—Photo by Edna E. Holmes

This is a closeup of Phyllis Davis demonstrating the importance of keeping clothes moving through the wringer of the washing machine as well as keeping her person and clothes free of entanglements. One hand is free to strike the safety release in case she or her clothes get caught.

Teaching Safety and Health AT WILSON MEMORIAL HIGH

By R. A. McChesney

Principal
Wilson Memorial High School
Fisherville, Va.

AT WILSON MEMORIAL High School, Fisherville, Va., during the school year 1956-1957 safety was taught in the class in general home economics which consisted of 18 boys. They participated in a unit, "Sharing in Making Our Home Safe, Clean, and Attractive." The work on this unit included the listing of hazards in relation to the causes of fires, burns, accidents, illness, etc.; discussions and reports on how to correct these hazards; and plans for finding and correcting them in our own homes.

Using the list of hazards to safety discussed in class, the boys checked their own homes to find the hazards existing there and in many cases were able to correct them with the help of other members of their families.

Reports from the boys in the class indicated that a number of hazards were corrected. Screens were mended; electric cords and appliances were repaired; one flue was repaired; steps were repaired; loose plastering was removed and replaced, and so forth. The teacher of this class reported that this study was very successful, and she plans to use it in her home economics classes for girls.

To teach safety in the practical nursing class, the Nursing Department made a special study. Material was presented by reports, charts, and booklets. In every nursing procedure, safety for the patient and for the nurse was stressed. This included the handling and placing of medicines in the home, devices for and ways of using them, and safety in the giving of treatments. This might be important both in regard to the patient's well-being and the legal aspect involving the nurse.

Safety as stressed in the shops was applied also to home safety. Safety, although not taught as a separate unit in the shops, was a very important part of each student's training. Emphasis was placed on the correct use of tools and precautions to be observed. Students were given demonstrations in the use of handtools and power equipment and were required to perform these demonstrations under close supervision so their instructor might be certain that they understood the correct way to use shop equipment. Shop organization permitted students to assume responsibility for proper housekeeping which was an integral part of shop safety. Each class elected a safety engineer to assist the instructor in the enforcement of safety rules. Rigid compliance with safe practices was required.

The teacher in the shops hoped to make the students in our shops safe workmen by making them good workmen. He stated, "There is a slogan that would cover what we are trying to do: 'Think Twice—You Only Live Once!' "

Every day was "Safety Day" in many of the classrooms. The main emphasis was on prevention—prevention of fire, prevention of disease or the spread of disease, prevention of indoor accidents, and prevention of indifference in attitudes to things leading to any of the above-named hazards.

First, this was carried out by keeping the room as free as possible from any fire hazards.

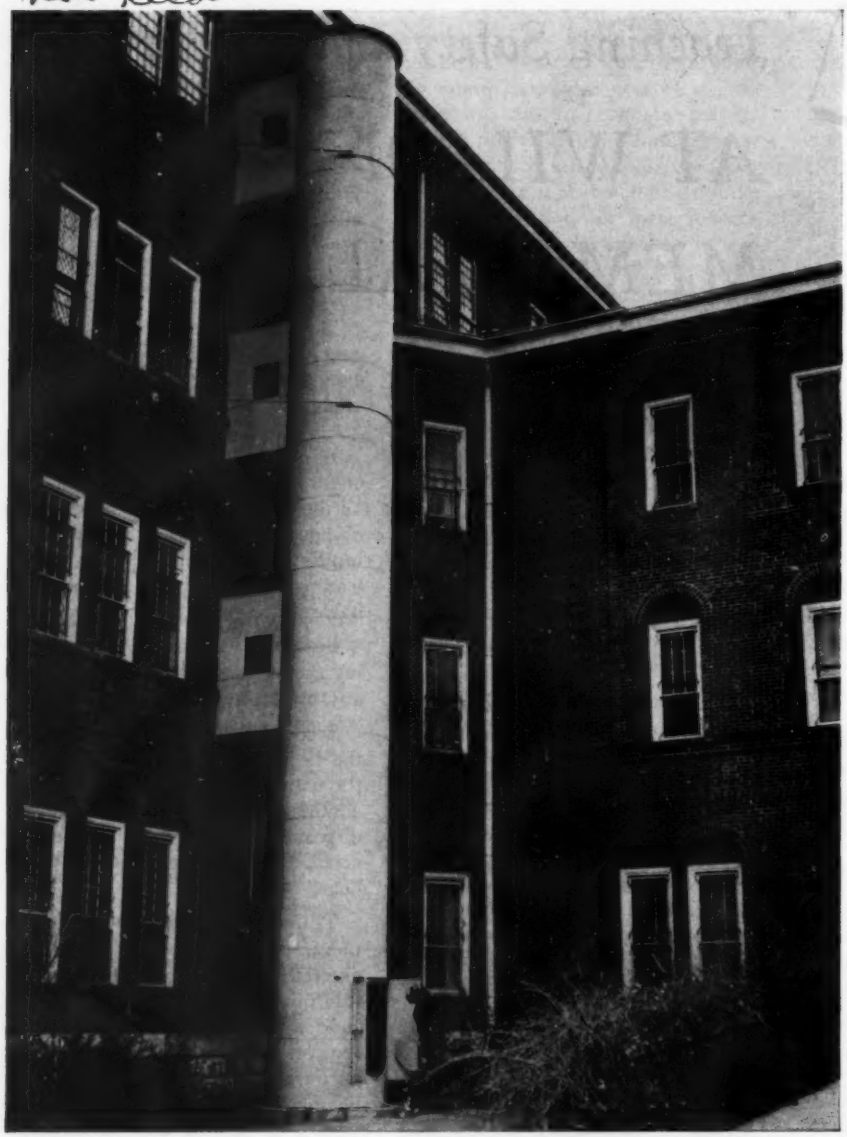
Secondly, this was emphasized by the exercising of watchful care over the temperature of the classroom, the elimination of drafts, the unsanitary disposal of used tissues, or the dust accumulated on the trough of blackboard or on desks.

Thirdly, the importance was emphasized of no horseplay as students entered or left the room, because this might cause a fall or injury if sudden contact were made with persons or things. Proper placement was encouraged of books, pencils, or other belongings which might become a hazard if left in the thoroughfare at rush periods.

Fourthly, the importance of health to the individual for his own sake and that of the group was daily emphasized by stressing and requiring good posture while sitting in the desk or otherwise; also mental health was promoted by seeking to create an atmosphere of orderliness, beauty, friendliness, and helpfulness.

If the students have a philosophy of life which inculcates the safety motif in their daily living, they will be better students, better citizens at large, and teachers will share in the generally improved status quo.

Not rec'd.



Circular metal patient evacuation chutes or slides rise four floors to top of hospital's tallest buildings.

PROVIDING* FIRE safety for almost 4,000 patients, 1,000 staff members, and property valued at more than $20 million is a prime responsibility of Ralph W. Osman, coordinator for Longview State Hospital, Cincinnati, Ohio.

"While ours is not a unique problem," he says, "fire safety at Longview is complicated by a number of factors. However, working with the nearby Cincinnati Fire Company No. 48, we think we have established a program to cope with this danger and minimize losses of any kind if a blaze occurs. First, we have taken steps to lessen the possibility of fire. Second, we have provided superior warning and extinguishing equipment and trained personnel to operate it. Last but not least is our patient evacuation plan.

Longview, situated on the city's outskirts, is spread over 275 acres and comprises more than 30 separate buildings, 17 of them primary structures. Some buildings date from 1859, while others of modern fire-resistant construction were completed as recently as 1956. Patients, both male and female, also complicate the problem as many of them are old, feeble, or senile.

Modernization

The first step in Longview's program is a continuing modernization of older buildings. For example:

Side moulded terrazzo is replacing wood floors in older buildings.

Doors dividing hospital areas are

*This article and the photographs have been reprinted from *National Safety News*, vol. 75, No. 6, pp. 38 ff., June 1957, published by the National Safety Council, Chicago, Ill.

Formula for a FIRE Problem:

Take 4,000 patients, many of them helpless, add 30 buildings, some of them 98 years old, scattered over 275 acres. Here's how Longview State Hospital met this fire threat.

self-closing, metal clad, and open out.

Ceiling water sprinklers are installed where practical, particularly in storage rooms and frequently unoccupied areas.

Metal, circular patient evacuation chutes or slides rise four floors to the top of the hospital's tallest buildings.

Typical of the thought that went into fire safety was the sealing of openings around pipes where they pass vertically through floors. Formerly some patients found such openings perfect for disposing of cigarettes not always properly snuffed out.

Good housekeeping is evident everywhere. No flammable refuse is permitted to accumulate, and staff personnel, including watchmen, are trained to be on the lookout for potential fire hazards.

Fire-fighting apparatus

Using city water at a pressure of over 100 p.s.i., all buildings have properly-placed standpipes and hose racks with lengths of new and periodically inspected hose. Water hydrants dot the property. Similarly, every ward has two or three soda-acid portable extinguishers and a like number of water pumps.

For spaces containing electrical or flammable liquid hazards, carbon dioxide portables are provided. All told, the hospital has 285 portables available for first aid fire-fighting. All of them are checked monthly.

"Even the best extinguishing equipment is useless unless trained people are available to operate it," says Longview's coordinator. "As a result, we have gone to great lengths to familiarize our staff with it. This is particularly true of our 50-man maintenance and utility department, which we consider our internal fire department."

Mr. Osman feels that smoking constitutes the institution's most dangerous fire potential. To effect some degree of control, smoking is limited to specified, central areas equipped to afford the greatest fire safety possible. However, the hospital has to face the fact that some patients will sneak a cigarette in a closet or dispose of it in a laundry hamper!

Automatic detection

Even though Longview has taken giant steps to minimize its fire risk and has provided superior extinguishing equipment, the hospital wanted equipment to detect promptly an incipient blaze. To answer this need it recently installed modern fire detection equipment which covers seven areas of the hospital. These zones

Testing automatic fire detection equipment. Apparatus works on temperature-rate-of-rise principle, can protect refrigerated areas or heat-treating departments.

Ralph W. Osman, hospital coordinator, sounds a practice fire drill. At upper left is the alarm and building designator panel, located at main telephone switchboard, which is manned at all times. A fire in any protected space sounds an alarm; a light on panel shows location. Frame under clock contains fire-emergency procedure instructions. Panel at right controls fire alarm and evacuation signal.

are often unoccupied (particularly at night) or areas of special hazard, such as the paint shop, storeroom, and refractory and recessive wards.

The apparatus (Kidde-Atmo) works on the temperature-rate-of-rise principle. Any undue temperature rise in a protected space causes an expansion of air in copper tubing mounted on the ceiling of the room. The two ends of the tube terminate at a detector. This expanded air moving in opposite directions through the tubing enters the detector and acts on two opposing diaphragms. The pressure forces them together and closes an electrical circuit which sounds an alarm.

Incorporated in the detector's design are features which eliminate the possibility of false alarms from normal temperature changes and even sudden, short surges of heat.

While moderately priced, the system is highly flexible in its application. It makes no difference whether the circuit tubing is in a refrigerated area where temperatures may be 10° F., or in a heat treating department where the thermometer registers 100° F. It is the temperature-rate-of-rise that actuates the detector, not a fixed temperature degree that must be reached.

Emergency power

In addition to positive protection, the system is self-supervising. Outdoor power failures do not affect the operation of the detecting alarm system. A self-charging wet battery electrical supply automatically cuts in if outside power fails, and a warning signal sounds. The batteries deliver up to 60 hours of emergency power for the system.

If a fire occurs in a protected area, the signal is flashed to a board in the hospital's main telephone switchboard room. There an audible alarm sounds, and a board designates the area reporting trouble. The girl on duty first reports the alarm to Cincinnati's Fire Department Company No. 48 giving the exact location of the fire. She then alerts the maintenance and utility department, the superintendent, and master mechanic.

Even though Fire Company No. 48 is thoroughly familiar with Longview's buildings, a utility department man automatically proceeds to the main gate and guides municipal fire fighters to the danger zone. If necessary, the public address system can be employed or the building's fire alarm-evacuation signal used. Should the blaze be detected from out-of-doors, a number of strategically placed fire alarm pull boxes are available on the hospital grounds.

Inspections play an important role in the program. They are made monthly by hospital personnel. After these inspections, which include drills, fire inspection reports are prepared for top staff personnel. Deficiencies are spotlighted and remedial measures instituted immediately. Backing these up are semiannual exhaustive inspections of Longview by Fire Company No. 48. So detailed are these inspections that even telephones are checked to see that they have red cards giving procedures for reporting a fire.

To date, Longview's vigilant program has paid off. In recent years the institution has experienced about two fires a year . . . an excellent record. In this connection it should be noted that the detection equipment has discovered two blazes since its installation. These fires have been quickly controlled and damage has been minor. At each alarm the training given the hospital staff enabled it to swing into quick defensive action. Simultaneously, Fire Company No. 48, highly praised by Mr. Osman, responded immediately and effectively.

Fire alarm boxes and hydrants are located over Longview's 275 acres.

Conference Develops Tentative Uniform Definitions

Conference[1] on Uniform Definitions of Acidents, Manual of Tentative Definitions of Home Accidents.

Introduction

THE CONFERENCE on Uniform Definitions of Accidents sponsored by the American Public Health Association, the National Safety Council, and the Public Health Service undertook as its first task the preparation of definitions of home accidents. Suggestions for terms to be defined were obtained first from about 40 persons engaged in home accident prevention. Then a draft of definitions was prepared by a Committee[2] which was discussed by the Conference in Chicago, April 22-23, 1957. Comments and criticisms expressed at that meeting were taken into consideration in preparing this tentative Manual.

The purpose of the manual of definitions of home accidents is to present precise meanings of terms so as to promote common understanding and to facilitate communication. It is not intended to serve as a dictionary or glossary; nor does it include recommended classifications of accidents and accident factors.

The criteria applied in determining what terms the manual should include were as follows:

1. The term must be pertinent to home accident prevention.

2. The term must have a special or technical connotation in home accident prevention or some field related to home accident prevention such as statistical analysis, medicine, engineering. Common or nontechnical terms that are clearly defined in the average dictionary are not included.

3. Some terms included are in common usage, but are subject to misinterpretation.

Consideration was given to existing technical definitions and some were modified so as to be applicable to home accidents. A few terms, such as carelessness and type of accident, have not been defined since they are indefinite and subject to varying interpretation.

In general, terms having common elements have been brought together. Grouping of terms sometimes gives the appearance of a classification scheme. In fact, there are several mutually exclusive categories in the Manual which constitute classifications. However, it is not the intent of the Conference at this time to present or recommend classifications. The Manual is strictly for promoting uniform definitions of terms. The Conference recognizes the need for suitable statistical classifications and plans to develop a series in the near future.

The material in this Manual is intended to refer specifically to home accident situations and injuries from home accidents, even though reference to "home" is not made in every instance.

The concept of accident sequence involving interactions between a person and the environment or agent, as presented in the Appendix, is a significant development. It is believed that application of this concept to analysis of accident situations will give a better understanding of the multiplicity of factors in accidents and the opportunities for intervention in an accident sequence before injury or damage occurs.

Draft Definitions of Home Accidents

Section 1. Home

■ **1.0** A *home* is a dwelling and its premises within the property lines. The dwelling may be a single family unit or a multiple unit building. A farm home is the dwelling located on a tract of land devoted to agricultural purposes and such premises as are used primarily for domestic purposes.

♦ **1.1** A *dwelling* unit is a group of rooms or a single room occupied as separate living quarters by a family or other group of persons living together or by a person living alone. Ordinarily a dwelling unit is a house, an apartment, or a flat, but it may be located in a structure devoted to business or other nonresidential use.

Trailers not in transit when occupied as living quarters are dwelling units.

♦ **1.2** *Multiple unit buildings* coming within the definition of a home (Sec. 1.0) include apartment houses, duplex dwellings, boarding and rooming houses, and seasonal cottages. In a multiple unit building, home includes only that part of the building reserved for use by a person, family, or household.

♦ **1.3** *Excluded* from the definition of a home are vacated houses, houses for rent or sale and without occupants, such as those newly constructed, but not occupied; hotels, motels, and tourist courts; berths or rooms on transportation vehicles; house trailers in transit; resident institutions such as hospitals, convalescent and nursing homes, old-age homes, orphanages, school and college dormitories; barracks; and vacant lots even though adjacent to

---

[1]The Manual was originally reproduced by the National Office of Vital Statistics, Public Health Service, Department of Health, Education, and Welfare, Washington, D. C., June 3, 1957.

[2]The Committee on Definitions was comprised of I. M. Moriyama, chairman; James Goddard; Fay M. Hemphill; Jack Recht; Gilbert Rhodes; Henry Steed; and Evelyn H. Halpin, secretary.

houses, unless made part of the yard by the owner.

♦ **1.4** *Home premises* include the garden for family use, driveway, garage, walk, and yard, but exclude the public sidewalk and the entire trafficway bordering the premises.

Home premises of a farm home include the garage used only to house the family car, but exclude the garage used in the conduct of farm business. Also excluded are the gardens from which produce is sold, barnyard, farm land, silos, granary, and other buildings used for agricultural purposes.

♦ **1.5** A *yard* is the area used for residential purposes within the property lines in front of, behind, or surrounding a dwelling. Excluded are rights of way and areas used for agricultural or commercial purposes.

♦ **1.6** A *household* is the entire group of persons who live in one dwelling unit. It may be several persons living together or a person living alone. It includes the household head and all his relatives living in the dwelling unit and also any lodgers, maids, and other persons not related to the head who live there.

Section 2. Home Accident

The total accident situation is composed of many factors interacting over a period of time. (See Appendix: Concept of Accident Sequence.) Difficulties in defining the term "accident" often arise from a confusion of interpretations involving cause and consequences. To facilitate the analysis of the accident situation in meaningful terms, the concept of accident sequence (2.0) is recommended.

A definition of "accident" may be needed by some groups, so that the Conference offers on a temporary basis the following: An *accident* is the event which occurs at that point in time in the accident sequence where the preceding factors or potentials interact to produce irreversible and recognizable results. For study, research, and program purposes, however, a more useful concept is that of accident sequence.

■ **2.0** An *accident sequence* is a chain of events, or a series of interactions between a person and the environment or agent, including the measurable or recognizable consequences. The consequence may be, for example, a slip or fall which does not result in any injury, or it may include unintended injury, death, medical expense, or property damage.

♦ **2.1** A *chain of events* is a sequence of occurrences, each influencing or reinforcing the effect of the next succeeding condition or event.

Usually all of the factors defined below play a part in an accident sequence, but it may not always be possible to identify all of them or to secure unanimous agreement on the factor group they represent.

♦ **2.2** *Background factors* are human (bodily or mental) and environmental factors, including agents, that increase the probability of development of an accident sequence.

For example, when an improperly installed gas line develops a leak, the improper installation and failure to detect the defect before the leak occurs are background factors.

♦ **2.3** The *initiating factor* is the event, condition, object, or act which starts the chain of events in an accident sequence.

For example, the leak from the improperly installed gas line initiates *the chain of events which leads to an explosion when a match is lighted in a gas-filled basement.*

♦ **2.4** Intermediate factors are those which maintain or further increase the potential of the hazardous conditions that lead directly to the immediate factors.

For example, the accumulation of gas in the basement to form an explosive mixture would constitute an intermediate factor.

♦ **2.5** *Immediate factors* are the acts, conditions, or objects that bring the accident sequence to a climax after which measurable or recognizable consequence may be identified. In many instances, the immediate factor will produce instantaneous results. In such instances, the immediate factor is called the "trigger mechanism."

For example, the lighting of a match in the gas-filled basement that brings about an explosion is the immediate factor in the accident sequence.

♦ **2.6-2.7** Guiding examples:

♦ **2.6** A person with poor vision hears a sound in the evening, goes to investigate, collides with a chair that has been moved from its usual location, and injures his leg. The poor vision is a *background factor;* the person's starting to investigate the noise is the *initiating factor;* limited illumination and the change in position of the chair are the *intermediate factors;* and collision with the chair is the *immediate factor.*

♦ **2.7** An elderly woman hurrying down highly polished stairs slips, falls, and strikes her head on one of the steps. Absence of a handrail and unsteadiness of age are *background factors;* the action of going down the stairs is the *initiating factor;* slipping on the polished surface is the *immediate factor* that precipitated the fall which resulted in an injury.

♦ **2.8** A *home accident* is any accident that occurs at home to members of the household, guests, or any domestic servant. Excluded are accidents during the course of gainful employment to persons other than members of the household and domestic servants, e.g., repairmen, meter readers, delivery men, etc.

Section 3. Injury and Death from Home Accident

■ **3.0** An accidental injury is any wound or damage to a person as the result of a home accident.

Note: For purposes of measuring accidental injuries, further qualifications of the injury (e.g., disability, medical care, medical expense) are necessary.

♦ **3.1** *Late effects of accidental injury* are impairments (fatal or nonfatal) resulting at any time after an accidental injury and deaths due to accidental injuries that occur one year or more after the accident.

■ **4.0** The *nature of injury* is the distinguishing characteristics of an injury, pathological change, or anatomical damage resulting from an accident.

Examples: a fracture, burn, laceration, poisoning, sprain, etc.

■ **5.0** *Severity of injury* is the seriousness or gravity of bodily damage resulting from an accident.

The use of such ambiguous terms as "slight," "moderately serious," "serious," "critical," "major," and "minor" should be avoided because they are difficult to measure and there is no general agreement as to their meaning. Arbitrary but relatively objective terms for severity of injury are: death *(Sec. 6.0),* disabling injury *(Sec. 7.0),* nondisabling injury *(Sec. 8.0). Other measures of severity are also given below.*

■ **6.0** An *accidental death* is a fatality in which the underlying cause is attributable to the accidental injury or to its late effects. (See Sec. 3.1, "Late Effects . . .")

■ **7.0** *Disabling injury* is an injury which restricts for 24 hours or more after the calendar day of injury one or more usual activities which the injured was capable of performing before the injury was incurred.

♦ **7.1** *Permanent total disability* is an injury other than death which results in permanent and complete inability to pursue usual activities. The loss of, or the complete loss of use of, any of the following in one accident shall be considered permanent total disability: (a) both eyes; (b) one eye and one hand, or arm, or leg, or foot; (c) any two of the following not on the same limb: hand, arm, foot, or leg.

♦ **7.2** *Permanent partial disability* is the complete loss in one accident of any member or part of a member of the body, or any permanent impairment of functions of the body or part thereof to any degree less than permanent total disability, regardless of any preexisting disability of the injured member or impaired body function. Excluded are hernia, when it can be repaired; loss of fingernails or toenails; loss of teeth; disfigurement; strains or sprains which do not cause permanent limitation of motion; fractures which heal completely without deformities or displacements.

♦ **7.3** *Temporary total disability* is an injury which does not result in death or permanent disability, but which renders the injured person unable to engage in usual activities on one or more calendar days after the day of injury.

♦ **7.4** *Impairments* are permanent physical handicaps resulting from an accidental injury, including impaired or lost members (orthopedic impairments) and measurable defects of the bodily senses or functions. This term is often used to describe the total of permanent total disabilities (Sec. 7.1) and permanent partial disabilities (Sec. 7.2).

■ **8.0** *Nondisabling injury (temporary partial disability)* is an injury which restricts for less than 24 hours after the calendar day of injury one or more usual activities which the injured was capable of performing before the injury was incurred.

■ **9.0** A *medically attended injury* case is an injured person receiving care from a licensed physician, or under his direct supervision, regardless of where care is received.

■ **10.0** A *hospitalized injury case* is an injured person admitted to the inpatient service of a hospital.

■ **11.0** An *outpatient injury case* is an injured person given care in a hospital facility, but not admitted to the inpatient service of the hospital.

■ **12.0** A *first aid injury case* is an injured person who receives care by a person other than a licensed physician.

Section 4. Factors in Home Accidents and Injuries

■ **13.0** *Human factors* are the intrinsic qualities or conditions of persons that play a part in accidents and lead to unsafe acts. The conditions may be permanent or transient.

Human factors may be physiological, mental and emotional, or pathological.

♦ **13.1** *Physiological factors* in accidents are functional conditions and those states which affect motor responses of perception.

Examples: fatigue, being under the influence of alcohol or drugs, hunger, temporary anoxia.

♦ **13.2** *Mental and emotional factors* are the attitudes, state of knowledge, feelings, and emotional reactions of the persons involved prior to an accident sequence.

Example: anger, anxiety, fear, lack of awareness of accident potential.

♦ **13.3** *Pathological factors* are those associated with diseased or damaged structures of the body.

Examples: a rigid joint, chronic disease, physical handicap, crippling condition.

13.31 *Crippling condition* is partial or complete loss of use of any extremity or organ of motion, such as the spine and muscles of movement, as a result of injury or disease.

13.32 *Physical handicap* is a permanent disability resulting from disease or injury, or congenital defect, including impaired or lost members and serious defects of vision or hearing.

13.33 *Chronic disease* includes all diseases or impairments having at least one of the following characteristics: permanent; leaving a residual disability caused by a nonreversible pathological alteration; requiring a special training or rehabilitation; or, requiring a long period of supervision, observation, or care.

■ **14.0** *Unsafe personal act and factor* in accident sequence.

♦ **14.1** The *unsafe personal act* is a violation of safe practices.

Example: using defective equipment; taking unsafe position; disregarding instructions; unsafe use of an object or substance, such as kindling a fire with gasoline; employing a knife as a can opener.

♦ **14.2** The *unsafe personal factor* is the mental or bodily characteristic which produces, contributes to, or results in the unsafe act.

Example: poor eyesight, lack of skill or knowledge.

■ **15.0** *Safety awareness or safety consciousness* is sensitivity to the existence of accident hazards and accident potential and to the need for safe practices and safe conditions.

■ **16.0** *Activity of person(s) involved* is the task being performed or act (not action leading to injury)

just before initiation of the accident sequence.

Examples: cleaning window, burning brush, cooking.

■ **17.0** *Action of person(s) involved* is the specific physical motion of the person at the time the immediate factors influenced the accident sequence.

Examples: lifting a window, striking a match, reaching for kettle.

A distinction should be made between the activity (or action) of the person(s) injured and the activity (or action) of persons who may have contributed to the accident but were themselves uninjured.

■ **18.0** *Environmental factors* are the conditions or objects in the physical surroundings that are involved in an accident sequence.

Examples: faulty stove, ladder, temperature extremes, icy sidewalk, floor.

■ **19.0** *Agent (agency) of accident* is the object, substance, or condition that was most closely associated with the accident.

Example: when a person slips on polished stairs and falls, the agent of accident is the slippery stairs; or, if a person trips on a toy on the stairs and falls, the agent is the toy.

A distinction should be made between an object or agent which was associated with the accident and an object or agent which caused the injury. The placement or condition of the agent or interaction of several agents are often factors in the development of an accident sequence. A careful description of the agent(s), how they are situated, and enumeration of all that are involved is essential to analysis of accident data.

Examples of agents of accidents that are sometimes subject to misunderstanding are given below.

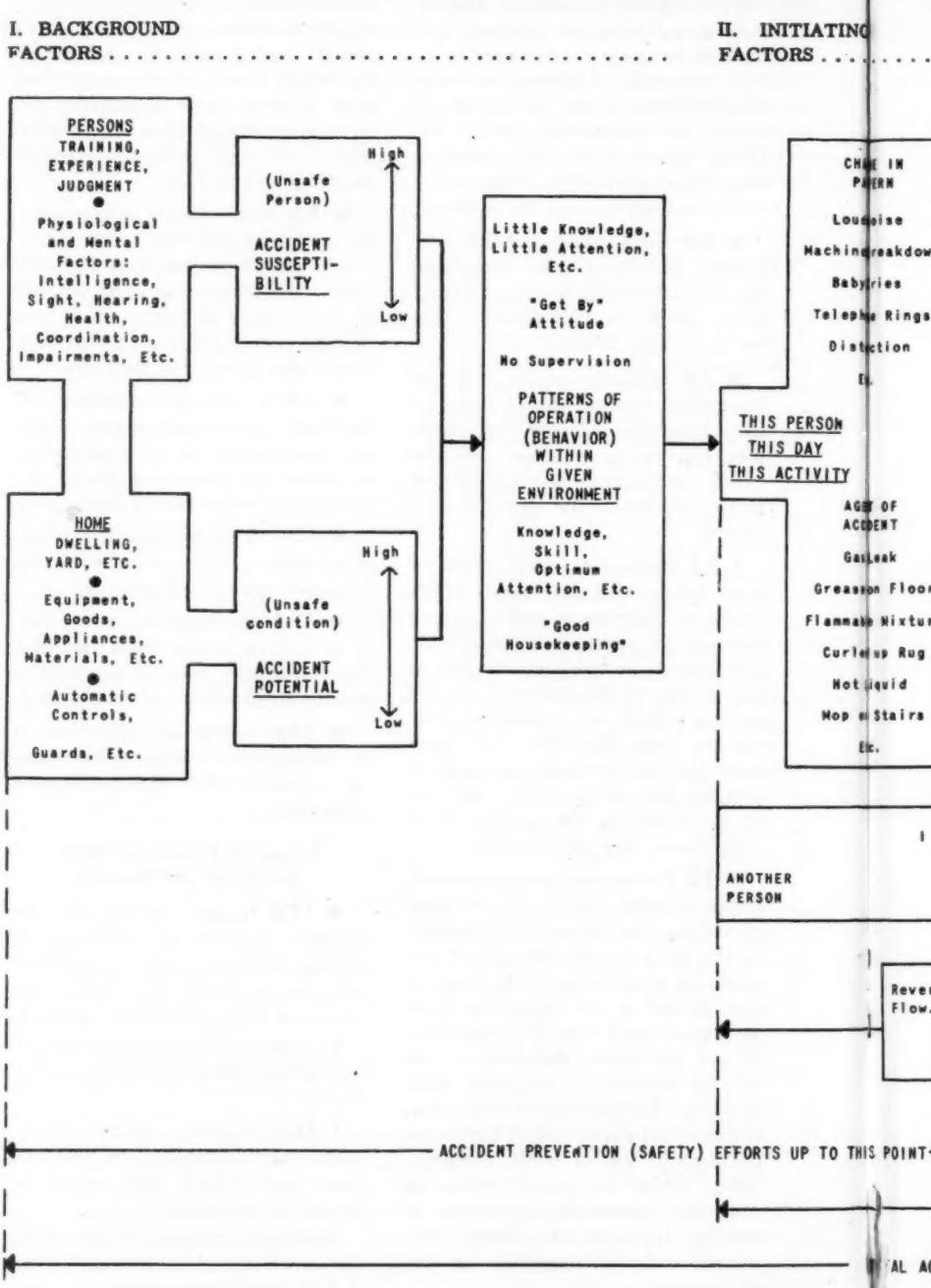
♦ **19.1** *Flammable substance* is a substance that is subject to rapid or explosive burning and that can be ignited easily or at relatively low temperatures. "Flammable" is preferable to "inflammable" since the prefix "in" often means "not."

Examples: gasoline, naphtha, butane, Celluloid.

♦ **19.2** *Home equipment* is built-

(To page 28)

FLO
THE DYNAMICS

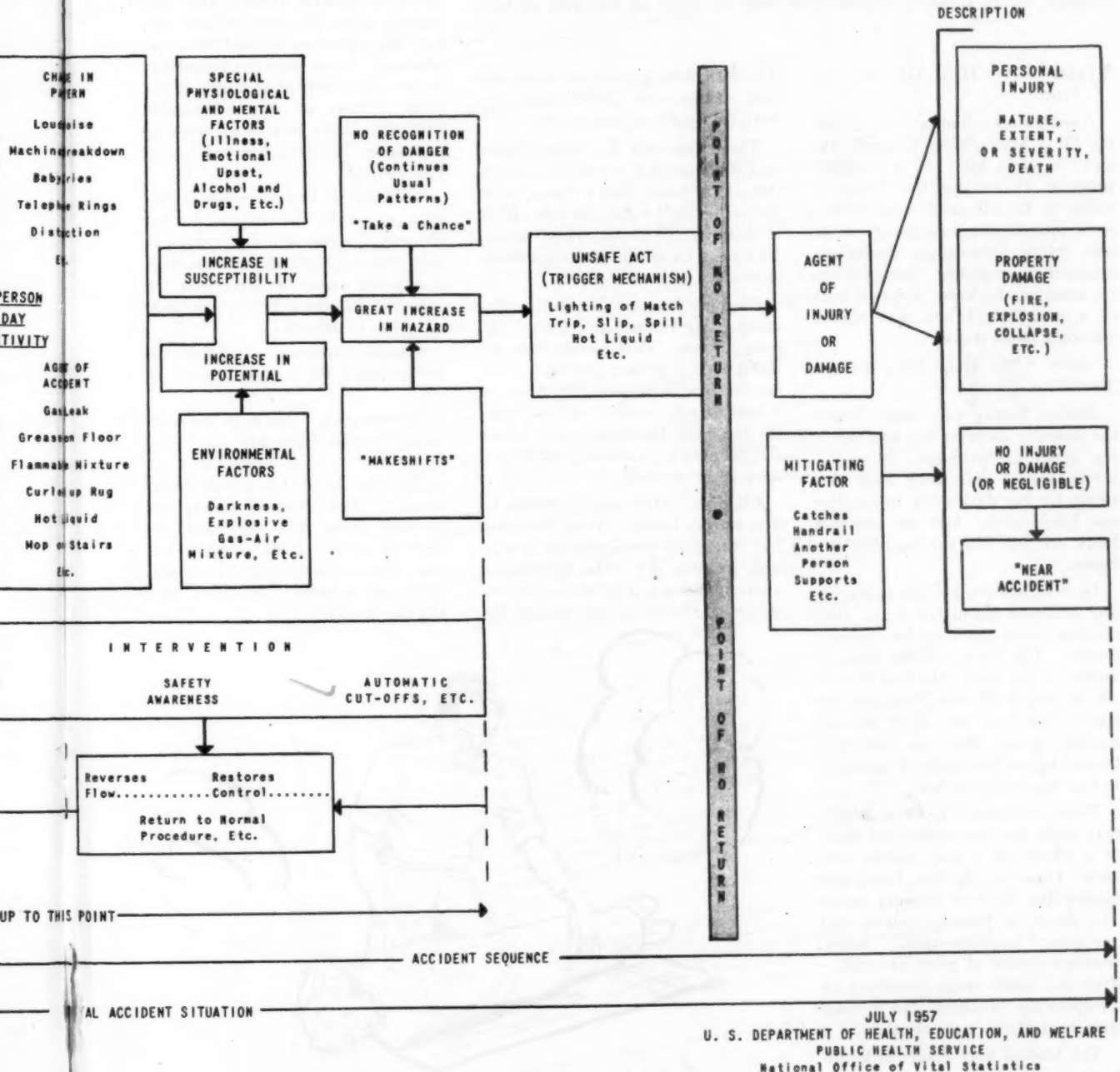


The chart above illustrates how an accident

a draft-only — This will be reprinted in complete (final) form in a separate publication - Jan. 1958 by the U.S. Public Health Service (Wash. 25, D.C.) per JEAN Z. IMMERMAN (Home Safety) 11-26-57 (WH)

FLOW CHART
ICS OF HOME ACCIDENTS

TIATING RS . . . . . | III. INTERMEDIATE FACTORS . . . . . | IV. IMMEDIATE FACTORS . . . . . | V. MEASURABLE (Recognizable) RESULTS . . . . . | DESCRIPTION



JULY 1957
U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
National Office of Vital Statistics

how an accident can be the final result of a chain of events—an "accident sequence."

Radio Script from Ohio

THIS SCRIPT WAS *produced by the WGAR Broadcasting Company and the Ohio State Safety Council, Cleveland, Ohio. H. G. J. Hays, executive secretary and treasurer, Ohio State Safety Council, states that this is one of a series of scripts the anecdotes for which were derived from a number of sources, among them newspapers and the annual Freak Squeak story of the National Safety Council. Occasionally someone sends an anecdote to him.*

VOICE: "So Help Me; It's the Truth!"

ANNOUNCER: Station ——— and the Ohio State Safety Council present "So Help Me . . ." a 5-minute program featuring the Voice of Safety as he tells us of some of the freak squeaks, the crazy goings on, as your fellow citizens got themselves involved in accidents. This evening, for instance, the Voice of Safety tells of a cozy breakfast that almost burned a house down.

VOICE: "So Help Me; It's the Truth!"

Shirley Bacon will never forget the morning she wore her new dressing gown to breakfast. It was a lovely thing, pale blue that did things for her darker blue eyes. She was lovely in it. And the soft pile fabric felt just like the fur of a tiny kitten.

Its very fineness led her to buy it, and it almost led to her death. She reached across the stove for the coffeepot. The heat arising from a burner of the stove (she had forgotten to turn it off—the heat, not the flame) ignited the sleeve of the dressing gown. She was severely burned before her husband managed to tear the robe from her.

There are several types of fabrics that catch fire too readily and burn to a cinder in a few, furious seconds. There are the fine, fuzzy, pile fabrics like Shirley's dressing gown. The chaps of Junior's cowboy suit and some "hug-me-tight" ladies' sweaters—made of piled material—have also made tragic headlines by unexpectedly breaking into a blaze from heat alone or a tiny spark.

The kind of fiber makes little difference unless it chances to be a synthetic that melts rather than flames. The fine fibers present so much surface contact with the air that they burn as rapidly as gunpowder.

Then there are the filmy blouses and negligees that are so popular today. One burst into a flame when the ash—that's right, the ash—from a cigarette fell on it. Here, again, we have a lot of fine fiber completely in contact with air.

Clothing fires are horribly frightening. The victim has a terrific impulse to run. That merely fans the rapid blaze to greater intensity. Roll on the floor, wrapping the victim in a coat or rug, is about the only way the blaze can be extinguished before the garment is consumed and the patient badly burned.

Children's play clothes should be firm surface fabrics. Avoid imitation fur. Train the youngsters not to play with or near fire. The burning of autumn leaves is a great temptation. Before you know it some reckless lad is jumping over the blaze. Others try to follow suit. One luckless one stumbles into the blaze—tragedy.

An incredible number of fires result from reckless mishandling of lighted cigarettes. People are burned on the face, have holes in their clothing, because others carry or brandish their cigarette with no heed of those around them. You can scarcely drive 10 miles without seeing live cigarettes pitched from car windows. Some burn out harmlessly on the pavement or shoulder of the road. Others set fire to valuable property. Don't let your cigarette go out alone. Put it out yourself before you leave it.

Smoking in bed is eventual suicide, especially for milady in her gossamer gowns. Do not smoke in bed—even though you *are* reading. A dropped smoke can ignite you, the bed, and all, almost before you know what has happened.

Wherever you are, watch that cigarette; don't let it make an *ash* of you.

ANNOUNCER: You have been listening to "So Help Me . . ." presented by ——— each ——— at this time for the Ohio State Safety Council. The Voice of Safety will be back again next week with the story of another freak accident and some tips on how you and I can stay alive and healthy. "So Help Me; It's the Truth!"

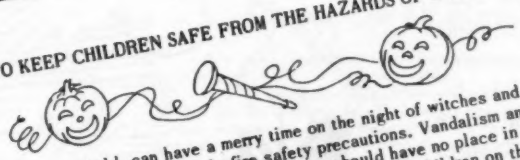
Rolling on the floor, wrapping the victim in a coat or rug, is about the only way the blaze can be extinguished before the garment is consumed and the patient badly burned.

Safe "Witches" and "Goblins"

SO THAT CHILDREN in New Jersey could be safe witches and goblins, the leaflet reproduced here was issued as a program service by Miss Edith R. Doane, director, Women's Division, New Jersey State Safety Council, Newark, N. J.

Not read.

HOW TO KEEP CHILDREN SAFE FROM THE HAZARDS OF HALLOWE'EN



Revelers, young and old, can have a merry time on the night of witches and goblins if they avoid dangerous pranks and observe simple fire safety precautions. Vandalism and the setting up of tripping hazards or other pranks that invite accidents should have no place in Hallowe'en revelry. Parents are charged with the chief responsibility for their children on that night. They should accompany their youngest toddlers, unless they can be entrusted to a competent older person.

Parents can insure greater safety for their children by making sure that they are properly costumed, by enforcing a reasonable code of behavior and by initiating or supporting community activities or parties that will provide a safe and wholesome outlet for their youngsters' Hallowe'en spirit.

1. Provide a **light-colored costume** so that the child can be seen more easily by motorists. It should be short enough so as not to trip the wearer either when walking or running.
2. Use a **"make-up mask"**, instead of a floppy textile one that can easily obscure a child's vision. Help him make up his face with a little rouge, eyebrow pencil, moustache sticks, facial tissues, cold cream and a full stock of imaginative ingenuity. The result will be a small ghost, pirate or clown who will be the talk of the neighborhood. And your youngster will be able to see danger in time to avoid it.
3. **Flameproof all costumes** made of loosely-woven fabric as a necessary safety measure to prevent a flash-fire from a flame or spark. Dip the clothing in a solution of 9 ounces of borax and 4 ounces of boric acid to a gallon of warm water. Wring by hand and hang to dry. Ironing does not affect the flame-resistance but the treatment must be repeated after each washing.
4. Dress up children's costumes with **reflectorized** tape or bands and decorations of glitter-stuff that reflects light.
5. Insist that a **flashlight** – never a candle – be used to light up a jack-o-lantern. Use the type of flashlight that remains lighted when the top is unscrewed. A cardboard collar fitted into pulp will help keep it upright.
6. Urge your child to **use the sidewalks,** not to roam the streets and not to dash out from between parked cars. Explain about highway accidents at this time and why the soaping of windshields of cars can lead to an accident if the driver has to use the car before he has a chance to clean the glass.

For a community program, try to secure window displays, by clothing stores, of reflectorized yarns and clothing, using an on-and-off illuminated peep-hole display. Ask the Home Agent, Home Economist or "five-and-dime" stores to have demonstrations of how to apply the glitter-stuff and of its reflectorizing properties.

* * * *

For Additional Program Materials Contact
Women's Division Director
NEW JERSEY STATE SAFETY COUNCIL
Newark 2, New Jersey
Trenton 8, New Jersey

24 Branford Place
28 West State Street

Mitchell 2-3123
EXport 4-9604

THE BASEMENT

HERE IS *a program aid entitled* The Basement, *published by the Kentucky Department of Health. According to E. D. Pulliam, formerly supervisor, Accident Control Section (now the Division of Accident Prevention of which H. Earle Belue is the director), Kentucky Department of Health, Louisville, Ky., this material is based on surveys conducted in Harrison and Marshall Counties, Ky. The preventive angles were worked up from many other sources of information.*

Regularly dispose of all unneeded newspapers, magazines, boxes, and rags.

IT IS DIFFICULT to tell just how important the basement is in home accidents because we do not know how many homes have basements. Seven accidents in the basement were recorded in Marshall County and 11 in Harrison County.

We do know that fires often start in the basement because of heating equipment, that it is a storage place for poisonous materials, and that our housekeeping tends to be rather lax in this part of the house. These factors make it a particular hazard.

SUGGESTIONS FOR MAKING THE BASEMENT SAFER

1. Make "out of bounds" to children all laundry equipment such as washing machines, wringers, dryers, electric irons, etc.

2. The washing machine cord should be in good repair.

3. The washing machine should be grounded.

4. A slatted wood platform in front of the laundry equipment will reduce the hazards of slipping on a wet floor or getting an electric shock.

5. Laundry tubs should be securely mounted to prevent the danger of toppling over.

6. All tubs should be kept high enough from the floor so that small children cannot fall into them.

7. All electric appliances, outlets, and switches should be located far enough away from water faucets so that it is not possible to touch the electric unit and the grounded metal at the same time.

8. It is safer to place the laundry or utility room next to the kitchen. This prevents many stair trips to the basement and makes it possible to keep a careful watch over the children.

9. If you have a low overhead leading to the basement, pad it with sponge rubber and paint a sign on it "low bridge."

10. If the cold water pipes sweat and drip on the floor, wrap them with insulating material.

11. Keep the basement in good order. Good housekeeping is just as important here as in any other part of the house.

12. Store paints, turpentines, pesticides, and other poisons out of the reach of children.

13. Keep power tools locked.

14. Have a covered metal can to dispose of the ashes.

15. Regularly dispose of all unneeded newspapers, magazines, boxes, and rags.

16. Store oily dust mops and dust clothes in closed containers.

17. Clean and inspect the heating equipment, chimneys, and flues before starting the fires in the fall.

18. Do not permit children to play around the furnace or to fire the furnace.

19. All gas furnaces and gas water heaters should be vented to the outside.

20. Store all combustible materials away from heating equipment. Nothing that will burn should be within 18 inches of furnace or pipes. This includes coal, wood, rubbish, or clothesline.

21. Fuses should be of proper size —15 amperes on most home circuits.

22. Provide a good light on the basement stairway with the light switch at the top and bottom of the stairs.

Clipping in v.f. He 3770

Proper Use of Portable Heater

THIS IS A portion of a *News Bulletin* for February 1957 which is published by the Bureau of Safety and Accident Prevention, Division of Safety, State of New York, Albany, N. Y., of which John M. Losurdo is safety coordinator.

not used.

Proper Use Of Portable Heater

Over the years portable kerosene heaters have been a constant source of loss of life by fire and asphyxiation.

In an investigation of oil burner fires conducted during the winter of 1953 and 1954, 46 percent of all deaths reported from fires and asphyxiation from oil burners of all types were due to the use of portable kerosene heaters. As a result of these unfortunate experiences a number of cities and municipalities have adopted ordinances prohibiting the use of these appliances.

One large city, which adopted such an ordinance, began to enforce the prohibition of portable kerosene heaters in 1948. In the three years before the enforcement of the ordinance there were 21 deaths due to these heaters. In the six years following its enforcement, there were only seven deaths.

It is recommended that only those portable kerosene heaters listed by Underwriters' Laboratories, Inc., be used. The safe use of these appliances, the National Board of Fire Underwriters says, depends upon following the manufacturer's operating and installation instructions and the general precautions, as follows:

1. *Appliances should be cleaned and necessary repairs made at the beginning of each heating season, and kept clean. Worn or damaged parts should be replaced promptly, preferably by the manufacturer or his representative.*
2. *Kerosene should be used for fuel. Gasoline should never be used.*
3. *The wick of the burner should be of the correct height and trimmed evenly. After lighting, wait a few minutes for oil to saturate the wick, then adjust to even flame, and watch for 15 minutes to guard against smoking or too high a flame.*
4. *These appliances should be carefully leveled and never filled or carried while lighted.*
5. *Special care should be employed in placing the heaters to avoid accidents or overturning and to avoid contact with combustible material.*
6. *These devices should be equipped with a sheet metal tray underneath the burner as an integral part of the heater.*
7. *When in use, a source of adequate fresh air should be provided.*
8. *Portable kerosene heaters should be refilled outside the building. The fuel supply should be kept outside in a 55 gallon drum or supply tank meeting the applicable tank requirements of NBFU Standard No. 31.*

No portable kerosene heater should be used unless it is equipped with a primary safety control furnished as an integral part of the appliance by the manufacturer to stop the flow of oil in the event of flame failure. The Underwriters' Laboratories listed heaters conform with these requirements.

Portable kerosene heaters are not required to be connected to a chimney or flue. Since air is required for proper combustion, the appliance should not be used for long periods of time in a room of tight construction. Under such circumstances the oxygen in the air may become exhausted with the result the room becomes filled with carbon dioxide and improper combustion of the fuel oil results in the liberation of carbon monoxide. *Therefore the appliance should not be used in sleeping quarters and when in use in other rooms, a window or door to the outside should remain partly open.*

There is also the common fault of leaving these appliances unattended after lighting. The vapors from the kerosene are the part that burns and as the burner is heated the vapor release increases. This results in a flame that increases in height and heat release. Even though the directions on the appliance often indicate a starting position of the controlling device and another position for operation, it is not good practice to light the appliance, turn the control to the operating position and then leave it without further attention.

AVERELL HARRIMAN
Governor

MICHAEL H. PRENDERGAST
Director

STATE OF NEW YORK — DIVISION OF SAFETY

Clipping in v.f. H.751f

HOME FIRE DRILLS

THIS RADIO SCRIPT was prepared by the Accident Control Section, Kentucky Department of Health, Louisville, Ky., to be used in their home accident prevention program.

MORE THAN 5,000 people die in home fires each year. About one-third of all fire deaths are among children less than 14 years old. Many people who die discover the fire before it gets to them. They suffocate from smoke because they have no plan of escape.

Most home fires can be prevented, but *be prepared* in case of fire.

Did you ever think about having a fire drill at home? Well, it's possible to do it. It may save your life and the lives of your family. Get the family all together this evening and make a plan. Here are some things to consider in making the plan.

The first important rule for living through a fire is to get everyone out of the burning building. We all know this, but the big question we must find the answer to is: how to do this quickly and in a way that no one will be hurt.

Talk over the possibility of using the different windows and doors in your home to get out of the house if it is on fire. The ways that you may have to leave the house at night from upstairs bedrooms will be different than in the daytime.

Sometimes young children or old persons are sleeping in a room in which there is no safe way of escape but the stairway. If the stairway is filled with flames and smoke, as it so often is, some other way must be planned for.

One way is to change the sleeping arrangement so young children and grandparents or a disabled person can sleep in a room from which there is a safe, easy escape. A bedroom which has a window leading onto a porch or garage roof provides an easy escape. The window opening onto the porch should have a latch which can be easily unhooked from the inside. After people have gotten to the roof of the porch, they can be rescued from there. A good plan is to keep a ladder stored on the porch roof. Then it can be used in such an emergency.

Still a better way is to have older persons and children sleep on the first floor. Sometimes neither of these changes is possible. If not, a rope ladder can be made and kept in the room. Children can learn to use these very easily. The rope should be prepared ahead of time. It should be about ½ inch in diameter, knotted every 12 inches, and long enough to reach the ground. A loop in the end of it will permit it to be placed over a bedpost or under the leg of the bed.

As an "on the spot" method of escape the knotted sheet "rope" using square knots is famous. Very young children must have an easier method than this.

Whatever the plan of escape, it must be practiced, not by going over it in your mind but by actually *doing* it. That is the best way to learn to do something which may save your life. Every member of the family, who is able, should practice. Those who are not able should listen.

Everyone in the house should be taught that in a fire it is not safe to rush through any closed door. Feel of it first. Put the flat of your hand against the door near the top. If it's hot, don't open it. If it isn't, put your hip against the door, and open it just a crack. In this way you can tell whether the hallway is filled with smoke. Sometimes there is great air pressure against the door. That's why it's so important to have your hip against it to force it closed.

You can see why it's a good idea to sleep with your door closed at night. If the house should be filled with smoke, it couldn't get to you while you are asleep, but, if you should waken and find the room filled with smoke, slip out of bed, and drop to the floor at once. Tie a pajama top, pillowcase, towel, or dresser scarf over your nose and mouth. Use whatever is handy. If it is wet, so much the better. Crawl to the nearest exit which you have planned beforehand. This is a routine that should be practiced too.

Suppose your clothing does catch fire. Would you and all of the members of your household know what to do? We all know that fire has to have air to burn. One of the quickest ways to cut off the supply is to roll up in a blanket or a rug, or you can jump into bed and roll up in those blankets. Just rolling on the floor will help if there is nothing else handy. Practice this too—with every member of your family going through the routine.

The first rule for surviving a fire, then, is: Get away from it! The second is: Get help!

Too many people have thought they could put out a small fire themselves. Don't take a chance. Call the fire department. Every member of the family who is capable should know how and practice how to do this. Keep the number of the fire department posted in some conspicuous place near the telephone. Just for drill imagine as many different situations as possible, and have each member make a practice call. Don't actually call, of course, but go to the phone as quickly as possible; place a hand on the receiver; and give the information needed: the full name of the head of the household and the street number or address. If you live in the country, be sure to give instructions as to how to get to your house.

If you live in the city, practice getting to the nearest firebox. In case of a real fire you would have to stay there until the fire department arrived so you could direct them to the fire.

We often lose our heads when we are frightened. That is one of the reasons why real practice in all of these things is so important. Another is so that each person will understand and be able to do the things which he must do in order to save himself.

EMERGENCY CARE of Childhood Skeletal Trauma and Burns

THE COMMITTEE ON Accident Prevention of the American Academy of Pediatrics, in cooperation with the Surgical Section of the same organization, has prepared statements to cover the emergency management of childhood skeletal trauma and burns.* Both of these statements are endorsed by the Committee on Trauma of the American College of Surgeons and have been approved by the Federal Civil Defense Administration. . . .

Emergency Care of Childhood Skeletal Trauma

1. Evaluate and splint where they lie before moving. Do not attempt reduction.

2. Move cervical injuries face up on a rigid support with manual traction applied gently by cupping chin at the time of moving. Sand bags on either side of neck to prevent turning, if possible.

3. Spine injuries should not be flexed in transportation.

4. Lower leg injuries transport in pillow strapped with belt.

5. Upper leg injuries transport with both legs and trunk bound to board without circulatory interference.

6. Lower arm injuries transport with splint such as rolled newspaper, gentle compression wrapping, and sling.

7. Upper arm can be bound to chest with lower arm supporting in sling.

8. Open injuries or open wounds cover with sterile dressing, do not dust with antibiotic, but systemic antibiotic is useful. Do not attempt to retract bone back under skin. Get to surgical care promptly.

9. Do not cover distal tips of extremities if it can be avoided thus allowing a circulation check to be made from time to time.

Emergency Care of Burns

1. Burns are due to thermal agents (scalds or fire); chemical agents (battery acid or lye); radiation (sunburn or nuclear); and electrical energy.

2. Even small burns may be followed by infection, lockjaw, excessive scarring, and disfigurement. Large burns may represent an immediate threat to life from shock. Arrest of the circulation and respiration may occur following electrocution.

3. Flames should be smothered; children who have been scalded should have their clothing removed immediately; chemical burns (except phosphorus) should be washed with large quantities of running water. Chemical burns of the eye should be flushed with saline solution or water. Patients should be removed from source of radiant energy.

4. Fresh burns are relatively clean. They should be covered by a clean cloth immediately and should not be uncovered until the patient is delivered to a hospital emergency room or a doctor's office. Such covering should be loosely applied without constriction.

5. Ointments, greases, powders, etc., should not be used in the emergency treatment of burns. Leave this management to the physician who will care for the patient.

6. Shock may be combatted by keeping the patient flat, reassuring him, and keeping him warm during transportation to the hospital.

7. Pain is usually not a serious problem in the emergency treatment of a burn, and drugs for pain should not be administered except by the physician who will care for the burn.

8. Patients with burns of the face, hands, feet, or areas surrounding a joint as well as any burn equivalent to more than 5 percent of the body surface should be hospitalized after emergency treatment.

9. Electrical burns accompanied by electrocution and failure of respiration and circulation should receive artificial respiration for an indefinite period and until ordered to stop by a physician.

*The above article entitled "Opinion and Comment: Issue Statements for Treatment of Skeletal Trauma and Burns," has been reprinted from the *Bulletin*, vol. 10, No. 11, p. 42 ff., March 18, 1957, published by the New York State Department of Health, Albany, N. Y.

Statement of First Aid Care Available

ACCORDING TO the following item in "News from the Field" in the May 1957 issue of the *American Journal of Public Health* copies of the above statement are available from the American Academy of Pediatrics:

"Considerable damage has often been done by rendering improper first aid care or transportation to children who have been burned or have had fractures. Now for the first time a brief nine-point statement of first aid care has been developed by the Accident Prevention Committee of the American Academy of Pediatrics and endorsed by the Committee on Trauma of the American College of Surgeons and approved by the Federal Defense Administration. Instructions for improvising emergency splinting and transportation of children with skeletal trauma, as well as instructions for the emergency care of thermal, chemical, radiation, and electrical burns are included. In this one-page statement, there is also warning against the frequent custom of using ointments, greases, and powders in the emergency first aid treatment of burns. American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, Ill. Free."

THESE RADIO SPOT announcements are from the Johnson County Health Department which is cooperating in the home accident prevention program sponsored by the Kentucky Department of Health.

spot announcements

30-SECOND SPOT ANNOUNCEMENTS

FALLS WERE reported as the leading cause of accidents in the recent survey in Johnson County. Let's take steps to prevent falls. Remove at once all misplaced objects such as toys, boxes, household tools, et cetera, from staircase steps and other lanes of traffic. Use nonskid wax on the floors and rubber treads on the stairway. Keep tread covers securely fastened. Wipe up grease or other wet or slippery substances immediately. Good housekeeping will prevent falls and many other kinds of home accidents.

The following suggestions will help you make every stairway trip a safe trip:

1. Do not run or hurry up or down stairs.
2. Take one step at a time.
3. Keep your eyes on the steps just ahead of you.
4. Have one hand free to grasp the handrail, and do not carry objects in such a way that they will obstruct your vision.
5. Think what you are doing; inattention may cause you to miss the steps.
6. Be sure stairways are lighted when used at night or on dark days.
7. Do not allow children to play on the stairway.

According to the recent survey, more accidents occurred in the yard in Johnson County than any other place in the home. Use and store lawn and garden tools immediately and safely. Keep tools in good repair. Have strong, safe covers for walls and cisterns. Protect children from pits, ponds, creeks, and watering troughs. Have a safe container for rubbish such as nails, glass, and wire. Teach good housekeeping and safe practices, and help prevent home accidents.

The blades of a lawn mower and other sharp garden tools can cause a permanent, crippling injury. Young children should be kept away from such implements, and older children should be taught the proper use of them. These implements attract the very young child. Keep him in the playpen or a fenced area while tools are in use. Use tools safely, and store them safely immediately after use.

60-SECOND SPOT ANNOUNCEMENTS

To achieve the highest degree of round-the-clock safety in the home, every member of the family has an important part to play. Not only must each have a good knowledge of safety plus safety judgment, but each must be concerned with the need for having everyone do things in a safe way. Have the family get together to discuss safety. Make a safety inspection of the home. Give each member of the family some accident hazards to eliminate or correct. Discuss safe actions in case of an emergency. Make plans and practice procedures on what to do in the event of a fire at night. Discuss what you can do in the event of an accident to avoid or minimize injury. Although the home itself may be safe, people living in it can still have accidents. All members of the family have obligations to each other to practice safety.

Help protect all members of your family from falls in the home by this simple suggestion; provide a convenient place to put playthings, and the child will be more apt to put them away. Toys that are put away after each play period will not trip the unwary. Many a broken bone has resulted from tripping over toys scattered around the floor or left on the stairs. When you are teaching your child to pick up his toys, do not expect him to do it alone at first, but help him, and make a game of it. Actually a child is very much interested in cleaning up. When you are cheerful and cooperative about helping him to put things away, you are fostering a good attitude in him as well as making the whole job easier on both of you. Safety taught at home will be practiced at school and at play as well as on the job and on the highway.

Two hundred and thirty-six cuts were reported in the recent home accident survey [in Johnson County, Ky.]. This is probably the most common type of accidental injury, and there are many simple things we can do to prevent these injuries. Keep butcher knives and paring knives sharp. You can cut more easily and more safely with a sharp knife. Store sharp knives in a rack designed for that purpose. Cut away from yourself. Do not hurry. Remove broken glass immediately. A piece of wet cotton will pick up fine shreds of glass. Put razor blades in a slotted container if a wall slot is not provided. You can make a slit in a condensed milk can for this purpose. Store sharp tools and other cutting implements safely out of reach of children. Have a container for rubbish such as tin cans, broken glass, nails, spikes, wire, and sharp tin sheets. Teach each member of the family to eliminate and correct accident hazards immediately.

Eisenhower Urges Scouts' Safety Good Turn Project

THE BOY SCOUTS of America will turn their full attention to the problems of saving human lives and reducing injuries from accidents during 1958 on the urging of President Dwight D. Eisenhower.

In a letter to the Boy Scouts, President Eisenhower said:

"In our land each individual is of inestimable worth, yet in no other land do accidents cause a more terrible loss of human life and limb.* This fact cannot be passively accepted. We must seek new ways to save the basic resources of our Nation: its people.

"Encouraged by the splendid results of your Conservation Good Turn four years ago, I now urge you to adopt Safety as your service project for 1958. Through the concerted action of your members, and in cooperation with other organizations, you can alert the public to the urgent need for reducing the tragic toll of accidents.

"This is an opportunity for service to your Country in the highest tradition of the Boy Scouts of America."

As a consequence of this letter, the Boy Scouts of America have selected "National Safety Good Turn—1958" as their national service project next year.

Working in close cooperation with the National Safety Council, the Boy Scouts have laid much of the groundwork for the program which will get under way early next year. A wide variety of program materials have been or are in the process of being prepared for distribution to thousands of Boy Scout leaders throughout this country and its possessions. These materials are designed not only to teach Scouts the techniques of safety but to assist them in making their home communities safety conscious.

*Ed. Note: We have no figures on U.S.S.R., India, China, or Indonesia. This statement refers to gross totals.

Forecasting the Next 5 Years in Public Health

By Otis L. Anderson, M.D.

Assistant Surgeon General, Chief
Bureau of State Services
Public Health Service
Department of Health, Education, and Welfare
Washington, D. C.

THERE ARE SEVERAL large areas of public health importance that are just now emerging.* They will provide in the next few years great opportunities for action.

I refer, first, to the imposing problem of accidents and their prevention. Indeed, accident prevention programs call for a wide variety of skills and talents on the part of many kinds of people in addition to public health workers: children, teachers, doctors, housewives, engineers, nurses, and many more. The public health administrator will have to integrate all community resources so that a united front can be established to define the problem areas and to attack their challenges with maximum force. A sound program of accident prevention must necessarily affect the whole fabric of society and all its interests.

Accidents are the fourth leading cause of death for all age groups and rank first among the age groups 1 to 36. In 1955, they caused about 90,000 deaths and an estimated 9,000,000 injuries and accounted for more disability in this country than any single disease. These accidents cost the Nation about ten billion dollars last year. Progress in public health compels imaginative action to bring the national accident toll within the bounds of tolerance.

Accident prevention is not a distant task. The fact is that accidents have been reduced when resources have been effectively mobilized. Industrial accidents have declined, for example, from about 43 deaths per 100,000 workers in 1937 to about 24 deaths per 100,000 in 1955. Some communities have reduced their death rates for home accidents by 50 per cent after inaugurating pilot programs in home accident control. In the future, increasing attention must also be given to the psychological and physiological aspects of accident prevention.

In the Public Health Service we have extended our activities beyond the home accident field, in order to further explore the broader problem, including accidental poisoning and the human factors concerned with highway accidents. Our objective is to identify needs, develop new knowledge, and co-ordinate activities. Perhaps more than in most fields, accident prevention calls for a broad co-operative effort. Industry, engineers, enforcement authorities, educators, voluntary agencies, and professional groups must all contribute. We shall need bold thinking, courageous planning, and vigorous action.

*This is an excerpt from the second installment of an article entitled "Forecasting the Next Five Years in Public Health," which has been reprinted from *Ohio's Health*, vol. 9, No. 2, pp. 34-35, February 1957, published by the Ohio Department of Health, Columbus, Ohio, and which is from material presented as an address before one of the general sessions of the 1956 Conference of Ohio Health Commissioners in September 1956.

APHA Committees in Safety Field

THE FOLLOWING committees and subcommittees of the American Public Health Association having to do with accident prevention have been or are in the process of being set up for 1956-1957 as announced in the *American Journal of Public Health* for May 1957:

Program Area Committees

Accident Prevention.—This committee's chairman is A. L. Chapman, M.D., Public Health Service, Washington 25, D. C. The committee is being formed.

Public Health Administration, Subcommittee on Chemical Poisons.—This committee's chairman is George M. Wheatley, M.D., One Madison Avenue, New York 10, N. Y., and members are: Erval H. Coffey, M.D., A. G. Cranch, M.D., Wayland J. Hayes, Jr., M.D., Irvin Kerlan, M.D., Robert F. Korns, M.D., Robert B. Mellins, M.D., Jerome B. Trichter, and Justus C. Ward. Frank Princi, M.D., is consultant and Edward Press, M.D., is staff associate.

Standing Committees

Committee on Evaluation and Standards, Subcommittee on the Hygiene of Housing.—The chairman is M. Allen Pond, Office of the Secretary, Dept. of Health, Education, and Welfare, Washington 25, D. C. Members are: Charles S. Ascher, F. Stuart Chapin, Ph. D., Martin Cherkasky, M.D., Thomas Fansler, Clarence W. Farrier, H. Van Zile Hyde, M.D., Ralph J. Johnson, Kenneth Kassler, E. R. Krumbiegel, M.D., Richard C. Lee, Paul V. Lemkau, M.D., William C. Loring, Jr., Ph.D., Bleecker Marquette, Mary Rokahr, A. C. Shire, George A. Speer, Harold A. Whittaker, Huntington Williams, M.D., Coleman Woodbury, Ph.D. Staff secretary is Eleanor Watkins, 321 Congress Avenue, New Haven 11, Conn.

M. Allen Pond is chairman of the Executive Committee and the following are members: F. Stuart Chapin, Ph.D., E. R. Krumbiegel, M.D., Huntington Williams, M.D., Coleman Woodbury, Ph.D.

Listed below are subcommittees and their chairmen:

Subcommittee on Results of Housing Code Enforcement, Charles S. Ascher, chairman, 838 West End Avenue, New York 21, N. Y.

Subcommittee on Rural Housing, A. C. Shire, chairman, Michael Reese Hospital, Chicago 16, Ill.

Subcommittee on Substance of Housing Regulations, E. R. Krumbiegel, M.D., chairman, Dept. of Health, Milwaukee 2, Wis.

Subcommittee on Tropical Housing, H. Van Zile Hyde, M.D., chairman, Public Health Service, Washington 25, D. C.

Representatives to ASA and N.S.C.

The American Public Health Association's representative to the Sectional Committee on Hazards to Children, Z-66, American Standards Association, is Frank Tetzlaff, C.E. The association's representatives to the National Safety Council are: Committee on Films for Safety, Arthur Kneerim; Home Safety Conference, Fred P. Long, M.D.; and Traffic and Transportation Conference, Jules V. Quint.

Fire Prevention Week—Oct. 6-12

IN THE LAST decade fire has killed about 65,000 persons (per the National Office of Vital Statistics) and burned and disfigured many hundreds of thousands more.

Each year about 6,500 Americans (per the NOVS) die needlessly in fire and more than twice that number are severely burned or disfigured for life. Old people and preschool children are the principal victims.

According to *Facts About Fire* published by the National Fire Protection Association: "Every day there are 1300 home fires . . . * * * . . . 150 store fires . . . 100 factory fires . . . 110 barn fires . . . 12 school fires . . . 4 hospital fires . . . 9 church fires.

"The combined U. S. and Canadian fire loss total in 1956 was $1,385,000,000 and there were approximately 2,000,000 fires.

"Most deaths by fire tragically involve women and children in the home. Many are suffocated by smoke and fire gases without being actually burned. Many deaths—too many—are caused by people falling asleep while smoking or re-entering burning homes to rescue pets and personal possessions.

"Most common causes of home fires: smoking and matches — 17.2 per cent; heating and cooking equipment — 13.7 per cent; electrical causes—12.9 per cent; rubbish, ignition source unknown—7.9 per cent; lightning — 5.9 per cent; chimneys and flues—4.9 per cent; flammable liquids, dry cleaning, painting, etc. —4.2 per cent; children and matches —3.6 per cent.

"Kitchens—26.5 per cent; living rooms—26.5 per cent; bedrooms—12.3 per cent; basements—10.4 per cent; concealed wall, ceiling and floor spaces—5.2 per cent; attics—4.7 per cent."

Fire Prevention Week will be October 6-12 this year, and the following and other materials may be purchased from the National Fire Protection Association, 60 Batterymarch St., Boston, Mass.:

Sparky's Official Home Fire Inspection Blank, two-color, one-page checklist.

Your Family and Fire, two-color folder.

When Fire Strikes You, two-color folder on the prevention of home fires and what to do if fire starts.

Sparky's Coloring Book, Fire Prevention in Song and Story.

Sparky Fire Books, No. 1, "Early Man and Fire!" and *No. 2, "Man Learns More About Fire!"* comic books.

ASTHO RESOLUTIONS

THE FOLLOWING RESOLUTION concerning accident prevention was among the 21 resolutions passed by the Association of State and Territorial Health Officers at their annual meeting held in Washington, D. C., November 4-8, 1956.

Resolution No. 8
Home Accident Program

Whereas home accidents constitute a major public health program, and

Whereas we recognize that state and local departments of health have an important role in the prevention of home accidents, and

Whereas the Public Health Service has taken steps to promote emphasis on home accident prevention: Therefore be it

Resolved, That the Association of State and Territorial Health Officers commend the Public Health Service for promoting the home accident program and encourage increased emphasis on this activity.

Accident Prevention Program in Minnesota

FOR ITS ACCOMPLISHMENTS last year in accident prevention beyond legal requirements, the Minnesota Department of Health has been commended by Governor Orville L. Freeman as a leader among state agencies. A bronze plaque for this achievement was presented by Gov. Freeman to Dr. A. B. Rosenfield, director of the state health department's special services division, on May 9. The department was selected as winner of the 1956 contest by the Minnesota Safety Council's committee on awards for state agencies. In selecting the department, the committee noted: "The health department's initiative in conducting inspection home safety training without a budget and without statutory requirements to do so is particularly noteworthy. In this action, the committee wishes to commend Dr. A. B. Rosenfield in his spontaneous activities for safety as director of the division of special services." (For his work as secretary of the state safety council's home safety section, Dr. Rosenfield received another award last fall.)

The safety council committee also gave special recognition to the Department of Conservation and its commissioner, George A. Selke, for water safety work. "For the first time in a quarter of a century, drowning deaths in Minnesota have been reduced below the 100 mark," the committee stated. Also cited were the Department of Education for its driver education program and the Highway Department for a wide range of safety activities.—*Minnesota's Health,* vol. 11, No. 4, p. 4, April 1957, published by the Minnesota Department of Health, Minneapolis, Minn.

Leaflets and Articles

ACCIDENT FACTS, 1957 edition, is now available. This 96-page booklet is the National Safety Council's annual summary of statistics of accidental death and injury in all fields of accident prevention: work, motor-vehicle, public nontransport, public transport, farm, home, and school. This volume may be ordered from the National Safety Council, Stock No. 021.57; prices: 1 to 9 copies $1.15 each; 10 to 99, $.85; 100 to 999, $.80; 1,000 or more, $.75. Prices are subject to 10 percent discount to National Safety Council members.

"Driver Behavior and Accidents," by Jean K. Boek, Ph.D., *American Journal of Public Health,* vol. 47, No. 5, pp. 546-552, May 1957, is a resume of research on traffic accidents done in Schenectady, N. Y., to gather information concerned with "attitudes, driving behavior, health, exposure, socioeconomic status, and other characteristics of the drivers," and to "test the hypothesis that the way people drive is associated with having accidents."

"How to Be Safe with Electricity," by Robert Hering, *Better Homes and Gardens,* June 1957, explains how shock occurs and depicts various built-in safety factors for electric installations and appliances and safe practices in the use of appliances.

How to Drown-Proof Your Family by Richard Christner illustrates how to use the Lanoue method of water survival technique which is a way of staying afloat without unnecessary exertion. The booklet is 12 pages, 2-color, 5¼ by 7⅞ inches, and was published by the Economics Press, Inc., Montclair, N. J.

1958 Safety Good Turn Council Guide presents suggestions for Boy Scouts to implement their Safety Good Turn project which is scheduled for February through December 1958. Their theme for September, October, and November, 1958 is "Home Safety." This 20-page booklet is printed in one color, is 5⅜ by 6 inches, and has been published by the Boy Scouts of America, New Brunswick, N. J.

Childhood Accident World Picture

THE JANUARY Chronicle of WHO summaries accident statistics for children and young persons between the ages of one and 19 years in 12 countries. In each of the countries, except Italy and Japan, accidents are the leading cause of death in this age group, ranging from 12 per cent of the total in Ceylon to 37 per cent in the United States. The percentages in Canada, Sweden, and Switzerland are almost equal to those in the United States; they are more than 30 per cent in Australia, Germany, and the Netherlands, 25 per cent in England and Wales, and 19 per cent in France. In Italy the percentages for accidents and pneumonia are identical; in Japan the chief cause is gastritis, duodenitis, enteritis, and colitis.

Although the countries studied show "a considerable over-all fall in accidents since 1931 . . . accidents are becoming a relatively important cause of death among children, primarily because of the conquest of other causes of death, and partly because of the rising tide of motor accidents." — *American Journal of Public Health,* "News from the Field," vol. 47, No. 5, pp. 666-667, May 1957, published by the American Public Health Association, Inc., New York, N. Y.

September 1957 "Sightsaving Month"

A NATIONWIDE observation of September 1957 as "Sightsaving Month" will be sponsored by the National Society for the Prevention of Blindness, New York, N. Y., to promote better eye health.

At least 90 per cent of inplant and home workshop eye accidents are preventable according to the society. The savings — in compensation payments, reduced earning and purchasing power, diminished production, and, most important of all, needless human suffering — are incalculable, when eye accidents are prevented.

UNIFORM DEFINITIONS

(From page 16)

in fixtures, appliances, implements, and other equipment for the home.

Examples: cupboards, stoves, vacuum cleaners, knives, brooms, electrical mixers, step stools, garden tools, and power tools.

♦ **19.3** *Poisons* are chemical substances, liquids, solids, or gases, which cause tissue damage and/or interference with physiological functions when ingested, inhaled, or otherwise absorbed.

Examples: kerosene, arsenate of lead, carbon monoxide, lye.

■ **20.0** *Agent of injury* is the object, substance, or condition that actually inflicted the injury.

Examples: flame from gas stove, hot flat iron, carbon monoxide.

■ **21.0** *Manner of injury* is the way in which an injury was incurred. It is analogous to what is called "accident type" in industrial accidents.

Examples: struck head against projection, inhalation of carbon monoxide, touched hot burner.

■ **22.0** The *unsafe condition of the agent (agency) of an accident* is the faulty mechanical or physical condition of the specified agent which could and should have been guarded or corrected.

Examples: A defective flue, a torn rug, leaking gas line.

■ **23.0** *Unsafe equipment* is any device, appliance or other equipment that presents an accident hazard because of improper design, construction, location, or maintenance.

Examples: fan without protective guard, towel rack overhanging stove.

Section 5. Site and Place of Accident

■ **24.0** *Site of accident* is the room or other specific place in the home or on the home premises where the accident but not necessarily the injury occurred.

■ **25.0** *Location of injured person* is the room or other specific place in the home or on the home premises where an injury was incurred.

Note: Although the site of accident and location of the injured person are often the same, in some accidents such as fires and poisoning by gas, the accident may occur in a different part of the home from that where the injury takes place.

■ **26.0** The *place of accident* is the exact geographic location (street, city or town, county, and State) where an accident occurred.

■ **27.0** The *place of death* is the exact geographic location (street or other address, town or city, county, and State) where death occurred.

Section 6. Demographic Characteristics

■ **28.0** The *place of residence* is the exact geographic location of the place (street, city or town, county, State) where a person usually lives. This may or may not be the same as legal residence.

♦ **28.1** *Housing* may be a single family dwelling, multifamily dwelling described by amount of rent paid or market value of house, characterized by age of building, state of repair, type of plumbing, etc. The place of residence is frequently used to characterize the type of housing or economic status of an area.

■ **29.0** *Personal characteristics* for statistical purposes are an individual's age, sex, color or race, etc.

Certain characteristics are also used as indicators of socioeconomic status, or level-of-living. These are, most frequently, housing or place of residence, occupation, education, and income.

♦ **29.1** *Age* is usually expressed as age at last birthday. For babies under one year, age may be given in months or days.

♦ **29.2** *Color or race.* The concept of race as used by the Bureau of Census is derived from that which is commonly accepted by the general public. It does not, therefore, reflect clear-cut definitions of biological stock, and several categories obviously refer to nationalities. The term "color" refers to the division of population into two groups, white and nonwhite. The group designated as "nonwhite" consists of Negroes, Indians, Japanese, Chinese, and other nonwhite races.

♦ **29.3** *Marital status* is a person's condition with respect to marriage, i.e., single (never married), married, widowed, separated, divorced.

♦ **29.4** *Education* is the highest grade of school completed.

♦ **29.5** *Occupation* is the trade, profession, or type of work performed by the individual. It may be usual occupation or employment, employment currently pursued, most recent employment, depending on age and activity of the individual or objectives of the study.

♦ **29.6** *Income* is the total amount of money earned by a person; and/or income from his own business or other sources in a year.

Section 7. Measurement of Home Accidents, Injuries, and Deaths

■ **30.0** A *count* is the number of accidents or injuries that fall within the criteria adopted for a given study. It is recommended that the criteria for counts be clearly specified in statistical reports. Until there is agreement as to what shall be counted, there will be questions of comparability of results from different studies.

♦ **30.1** *Incidence (frequency) of accidental injuries* is the number of injuries occurring in a population in a specified time period.

♦ **30.2** The *prevalence of accidental injury* is the total number of injuries, including late effects, existing at any one time in a population, regardless of when the injury was incurred.

■ **31.0** A *rate* is the ratio of the number of events in a specified time period to the population under study. It is customary to multiply this ratio by a factor such as 1,000 or 100,000 to avoid expressing the rates in units less than one. In reporting rates, it is important to give the base on which they were computed.

Death rates may be computed for the general population, in which case they are called crude death rates, or for a segment of the population (e.g., an age or sex group) in which case they are specific rates. Measures of the population are counts of the population, usually the average population, subject to the chance of ac-

cidental injury during a specified time period.

♦ **31.1** A *person-injury rate* is the number of persons injured in a given population in a specified time per unit of population. The rate may include injuries from certain agents, such as fires, in which case it should be specified.

♦ **31.2** An *injury incidence rate* is the number of injuries occurring in a given population in a specified time per unit of population.

♦ **31.3** A *death rate* for accidents is the number of deaths from accidental injuries, including late effects, in a given population in a specified time per unit of population.

♦ **31.4** A *disabling injury severity rate* is the total days of disability from accidental injury per million hours exposure of a given population. Days of disability include actual calendar days of disability resulting from temporary total disabilities and a scheduled number of days for deaths and permanent (total and partial) disabilities.

♦ **31.5** An *injury fatality rate* is the ratio of the number of deaths from accidental injuries, excluding deaths from late effects of injuries, to the number of accidental injuries occurring during the same period, usually multiplied by a factor of 100.

■ **32.0** *Duration of an injury* is the period of time elapsing continuously between the occurrence of an injury and healing of the injury, or restoration of function, or death.

■ **33.0** *Duration of disabling injury* is the period of time elapsing continuously between the occurrence of an injury and ability of the injured person to resume his usual activities, excluding the day of injury.

■ **34.0** *Costs of accidents* are the measurements in dollars (actual or estimated) of the tangible and intangible losses resulting from accidents and accidental injuries. The losses may be sustained by individuals, employers, property owners, corporations, governmental agencies, etc.

♦ **34.1** *Direct costs* are losses which are directly attributable to accidents and accidental injuries. Some of the components of direct cost are: medical and surgical expenses; wages lost (if compensation or insurance claim payments exceed wage loss, the excess is considered an indirect cost); legal fees, the cost of property damage (if judgment payments exceed property damage estimates, the excess is considered an indirect cost); and the overhead cost of insurance. Wage losses in fatal cases and permanent total disabilities are determined actuarially by computing the present value of expected future earnings.

34.11 *Wage loss* includes loss of monetary earnings from employment regularly filled by the injured person or the value of his services, due to inability to work; lower wages when returned to work due to partial disability; and the present value of anticipated future earnings in the case of permanent total disability or death.

34.12 *Medical costs* include doctor's fees and costs of hospitalization, including wages paid for private duty nursing either inside or outside of a hospital, cost of drugs and medicines; costs of prosthetic devices. Funeral expenses are not included.

34.13 *Property and equipment costs* are losses due to accidents resulting in property damage and shall be determined by insurance company evaluations for all property and equipment covered by insurance; damage to uninsured property and equipment shall be the evaluation of the owner unless another and better source of information is available.

♦ **34.2** *Indirect costs* are losses which are due to secondary consequences of accidents and accidental injuries. Some of the components of indirect costs are: cost of time lost by uninjured person who assists the injured person or remains at home because of injury to another member of the household and any excess of judgment payments over wage losses or property damage estimates (such excesses being considered punitive payments rather than payments on losses incurred).

■ **35.0** A *survey* is a systematic means of gathering from a population information such as the frequency and circumstances of specified events or conditions; opinions held on given subjects of intentions of individuals. A mass survey is a survey of a large population, which includes each individual or all individuals having certain characteristics. A *sample survey* is one designed to determine the status for an entire population group on the basis of a sample of the total.

♦ **35.1** A *sample survey design* is the specifications for the selection of a sample from a universe (population) in such a way that only a portion of the universe will be studied so as to give information about the whole with an estimated margin of error.

♦ **35.2** *Statistical significance* is a probability statement that measures computed from two or more observed groups are random observations from the same universe.

Section 8. General Terms in Accident Prevention

■ **36.0** *Accident prevention* or injury prevention is those activities, services, and materials that are directed at correcting specific conditions, situations, attitudes, and actions that are likely to produce an accident sequence or injury.

♦ **36.1** *Home accident prevention* or home safety is accident prevention applied to promoting safe environmental conditions in or around the home; and, through either organized or individual effort, the education (or enforcement) of individuals to follow safe practices.

■ **37.0** An *accident hazard* is the risk, peril, or danger involved, or existing in varying degrees, in an act, situation, substance, or object.

■ **38.0** *Accident investigation* is the inquiry, observation, and examination of the facts of an accident that produce information about when, where, how, to whom, and under what conditions an accident occurred. An investigation provides

more information than a routine accident report.

■ **39.0** *Accident potential* of a condition, situation, object, or substance is its capacity under certain circumstances to play a part in an accident sequence.

Examples: use of a flammable substance near an open flame has a high accident potential; icy sidewalks have a higher accident potential than dry sidewalks.

■ **40.0** *Accident proneness* is the continuing or consistent tendency of a person to have accidents as a result of his stable (psychomotor and sensory) response tendencies. An accident-prone person is one who, whatever type of activity he pursues, has more accidents than others engaged in the same activity.

■ **41.0** An *accident repeater* is a person with a history of a number of accidents in a specified time period.

■ **42.0** *Accident susceptibility* is the condition of having more than the normal risk of having an accident injury.

Examples: elderly persons with poor vision or unsteady movements and young children have a high degree of susceptibility to accidental injury.

■ **43.0** A *control or control group* is an individual or group of persons that is used for comparison with a test group in application of the experimental method to determine the effect of a course of instruction, a medicine, or some other treatment.

Example: the accident experience of a group of households receiving special attention in safety education may be compared in its injury experience with a group of households with similar characteristics, but not receiving instruction in safe practices. The latter group of households serves as the control.

■ **44.0** *Epidemiology* is the study of the occurrence and distribution of a disease or condition (accidental injury) in a population and of the factors that influence its occurrence.

■ **45.0** A *fatality report* is a report of an accidental death that is designed to give information about the victim, the circumstances of the accident, and the injury.

■ **46.0** *Fire prevention* is the measures directed toward avoiding the inception of fires. It is the application of engineering principles and education to prevent or minimize the occurrence of fires and explosions.

■ **47.0** *Fire protection* is fire extinguishing and related activities directed at controlling fires or reducing the extent of personal injury and property damage by fire.

■ **48.0** A *home accident injury report* is a record that gives the details about injuries resulting from a home accident. It does not include details about the accident that are obtained by a home accident report.

■ **49.0** An *inventory* of home accident prevention services and activities is a listing and narrative outline of what a municipal, county, or State government, voluntary organization, business, or industry is doing or has done in a specified time in home accident prevention.

■ **50.0** A *home accident prevention program* is a general term that may embrace many projects or activities and which implies continuity of planning and effort along many lines of accident prevention with responsibility focused in a single organization.

A *coordinated program* incorporates accident prevention into each existing phase of the total program of the organizations concerned.

♦ **50.1** A *project* is a group of related activities limited in both objective and time.

♦ **50.2** An *activity* is a specific action undertaken by a particular group on a specific aspect or phase of home accident prevention.

■ **51.0** A *near accident* is an accident sequence without measurable results in terms of injury, medical expense, or property damage.

Example: When a person stubs his toe on an uneven walk, plunges forward, but does not fall and is uninjured, the sequence has no measurable results and is a near accident.

■ **52.0** *Protection* from accidents is the care and attention given by others to the prevention of accidents to an individual. Complete protection is essential in infancy, but is replaced as the child grows older by education leading to knowledge and experience which enable him to protect himself. In some instances, nearly complete protection must be provided for the senile and other aged persons in the home.

■ **53.0** A *safe environment* is the physical surroundings, including equipment, so constructed, arranged, maintained, and operated that the accident potential of the environment is minimized.

■ **54.0** *Safe practices* are actions and movements of individuals carried out in such a way that the opportunities for accidents are minimized.

Examples: using a step stool when reaching into a high cupboard; keeping saucepan handles turned toward center of the stove; testing bathwater with hand before placing infant in tub.

■ **55.0** *Safety education* is the instructing, training, and motivating of persons to follow safe practices and to create a safe environment.

Appendix

Concept of Home Accident Sequence

The flow chart is intended to illustrate the dynamics of home accidents, and to indicate where many of the terms defined in Section 2 may fit into a schematic diagram.[2] The "total accident situation" (see bottom line on chart) includes both "background factors" (Phase I) and "accident sequence" (Phases II, III, IV, V). Accident sequence includes (recognizable) results" (Phase V) as well as antecedent factors (Phases II, III, IV).

Essential to an understanding of the chart is the concept of "accident sequence" (items 2.0 to 2.8 in text) as distinguished from the idea of "accident" as a single event. Accident-as-a-single-event is often difficult to explain. Indeed, to the average person an accident seems to "just happen" — suddenly, without warning, and without much rhyme or rea-

[2]The explanatory words and phrases in the various diagrammatic boxes are intended solely to be illustrative. They are neither all-inclusive nor are they mutually exclusive. The reader is urged to supply additional items from his own study of accidents.

son. Such an occurrence, being difficult to explain, is even more difficult to prevent.

To the trained and experienced investigator, however, an "accident" is not a single, isolated event. There are always antecedent circumstances and factors which, taken together with certain background factors, indicate a sequence or chain of events leading quite logically and understandably to the final result. The final result is not, therefore, due to chance or bad luck. Instead, the final result is due to the operation of well-known physical laws (combustion, pull of gravity, interaction of forces, etc.).

The investigation of accidents usually starts with the recorded fact that someone was hurt. This is Phase V of the chart. Inquiry is then made to establish circumstances immediately preceding the injury, or Phase IV of the chart. Further researches may lead back into other antecedents (Phases III, II) and even to descriptions of the kind of person involved and the environmental situation. Thus, before the investigation of one incident is complete, the investigator may be led to a study of "background factors" (Phase I).

The concept of "accident sequence," as defined in the text and illustrated here in the chart, clearly demonstrates where accident prevention efforts may serve to prevent injury and damage.

Accident prevention may operate to influence the *background factors* through education to reduce the individual's "accident susceptibility" and through education, as well as engineering and legal enforcement. In every home there are many hazards (fire, electricity, sharp tools, machinery, poisonous chemicals or medicines, etc., etc.) and consequently many opportunities for injury. It is accepted as axiomatic that alert, trained, unhandicapped adults will maintain a home in reasonably safe condition and will establish patterns of reasonably safe operation in the daily routine. Other persons less knowledgeable, less well-trained, will set up other patterns of daily routine. These patterns may be described and may possibly even be scaled in terms of the likelihood of accidental injury.

Initiating factors are those elements affecting a given person on a given day performing a given task. These elements may be thought of as setting off the train of events in the total accident sequence. What the person does in relation to these initiating factors often determines there and then whether an injury will occur. Minor upsets in the usual patterns and routines will be handled promptly and efficiently by the person having safety awareness and safety training.

The buildup of events and circumstances *(intermediate factors)* may, however, escape the individual's attention. Or he may not know what to do. Or, for physiological or psychological reasons, he may decide that "this time won't matter" ("get-by" attitude). The person may use makeshifts, etc., to cope with the situation. The intermediate buildup may be so rapid as to lead directly into *immediate* circumstances and resulting effects. The transition from control to no control may be swift.

Should another person or some automatic control intervene, injury may be prevented and no harm done despite circumstances recognizable as extremely hazardous. Control may be restored, the flow of events reversed, and normal patterns and procedures restored at any time up to the point beyond which there is no turning back (point of no return).

Once the individual has started to fall, it is too late to prevent the fall, too late for accident prevention measures. The usual result is injury or damage, the extent of which can be described or measured. Injury may be so slight as to be unmeasurable, or injury may be prevented through some mitigating factor. Nevertheless, an "accident sequence" has taken place, and the "near accident" (without injury or damage) can be recognized as a consequence of preceding factors and circumstances. Study of such instances as well as study of cases where injury or damage resulted should prove valuable for developing prevention programs.

New Program Directors

THE HOME SAFETY program of the Oregon State Board of Health will be administered by Joe L. Taylor, director, Health Education Section. The Oregon legislature permitted three-fourths time of one person for home safety at the expiration of the Kellogg Grant fund. Janice Westaby, formerly home safety consultant with the Board, is now a senior public health educator with the New York State Department of Health.

Miss Nettie Day is now acting chief of the Accident Prevention Section, North Carolina State Board of Health. Miss Day, formerly health educator with the board, replaces Charles Cameron, M.D., of the University of North Carolina's School of Public Health who will continue as a consultant to the Accident Prevention Section.

Accident Prevention a Task Force Area

ACCORDING TO "The APHA Task Force: A Progress Report" in the May 1957 issue of the *American Journal of Public Health* accident prevention will be one of the eight program areas to be given greater status and scope by the American Public Health Association. They state:

". . . The Executive Board has studied this problem and has now concluded that, for the present, eight program areas should prevail. Each will represent the status of a full committee and all of them will be grouped for coordination under the new Technical Development Board. These eight program areas will now operate under committees titled Accident Prevention, Child Health, Chronic Disease and Rehabilitation, Environmental Health (formerly Sanitation), Medical Care Administration, Mental Health, Public Health Administration, and Radiological Health. . . ."

FATAL HOME ACCIDENTS

HOME ACCIDENTS, 1956

	Deaths	Deaths per 100,000 persons	Injuries
Total	28,000	16.7	4,200,000
In urban homes*	24,900	17.2	3,740,000
In farm homes	3,100	13.9	460,000

*Includes rural nonfarm homes.

The injury total of 4,200,000 means that one person in forty in the U. S. was disabled one or more days by injuries received in home accidents in 1956. About 110,000 of the 4,200,000 injuries resulted in some permanent impairment.

Home accidents cost $900,000,000 in 1956. This is a minimum estimate and includes only lost wages, medical expense, and the overhead cost of insurance. It does not include any property damage of which fire losses alone totalled over $250,000,000.

FOR THE FIRST time a study has been done by the National Safety Council and the U. S. Public Health Service of the location of fatal home accidents in and around the home in 16 states for 1952-1953.

According to this study about four of five fatal home accidents occur inside the house. For different types of accidents, though, the percentages vary, as shown in the table above.

Of the deaths occurring inside the house, over half happen in the bedroom, with "living" areas (living rooms and dining rooms), kitchens, stairs, and bathrooms next in that order. The principal accident type in each of these locations is falls; fire is next.

For each of the four most important types of accidents occurring inside the house—falls, fires, poisons, and suffocations—the principal place of occurrence is the bedroom. The living-dining room area is the next most frequent location of falls and suffocations; the kitchen is the next most frequent location of fires and poisons.

Outside of the dwelling, the order of importance of places of fatal accidents is: yard, steps, porch, garage, walks, roof. Falls are the leading type of accident in all of these places except the garage.

HOME ACCIDENT DEATHS BY MANNER OF INJURY AND LOCATION

Manner of Injury	Per Cent of Fatal Accidents		Location of Fatal Accidents Inside the House†					
	Outside House	Inside House	Bedroom	Living, Dining	Kitchen	Bathroom	Stairs	Other
Total	21%	79%	526	155	145	50	57	67
Falls	25%	75%	213	94	70	34	55	32
Same level	*2%*	*98%*	*177*	*87*	*64*	*32*	*	*29*
Different level	*75%*	*25%*	*36*	*7*	*6*	*2*	*55*	*3*
Fire	11%	89%	137	31	42	4	*	21
Conflagration	*6%*	*94%*	*76*	*13*	*19*	*2*	*	*14*
Fireplace, stove, etc.	*25%*	*75%*	*22*	*13*	*20*	*1*	*	*3*
Suffocation	*2%*	*98%*	*39*	*5*	*3*	*1*	*	*4*
Poisons	17%	83%	31	8	13	3	*	6
Gas	*18%*	*82%*	*19*	*5*	*5*	*1*	*	*5*
Solids, liquids	*16%*	*84%*	*12*	*3*	*8*	*2*	*	*1*
Suffocation	5%	95%	117	10	7	*	*	1
Mechanical	*5%*	*95%*	*90*	*3*	*1*	*	*	*1*
Foods, objects	*4%*	*96%*	*27*	*7*	*6*	*	*	*
Firearms	37%	63%	4	8	4	*	*	4
Struck by person, object	79%	21%	1	1	*	*	*	1
Drowned	50%	50%	2	*	1	3	*	*
Electricity	59%	41%	*	1	*	1	*	1
Other	49%	51%	21	2	8	5	2	1

Source: Home Accident Fatality study by U. S. Public Health Service and National Safety Council.

†Figures indicate the frequency per 1,000 fatal accidents.

*None, or less than 1 per 1,000.

Decrease in '56

In 1956 the rate of fatal home accidents decreased 2 percent from 1955 as shown in the table below. From 1928 to 1956 the rate of deaths in home accidents has decreased 41 percent. The source for the material on this page is *Accident Facts*, 1957 edition.

Type	Death Total	Population Death Rate*	Changes in deaths from 1955	Changes in deaths from 1949
All types	28,000	16.7	—2%	—10%
Falls	13,600	8.1	—4%	—17%
Fire burns, and other deaths associated with fire	5,500	3.3	+2%	+20%
Firearms	1,200	0.7	+9%	+14%
Poisons solid or liquid	1,050	0.6	—9%	—25%
Poison gases	850	0.5	—6%	—15%
Other home accidents	5,800	3.5	—1%	—11%

*Deaths per 100,000 population.

Deaths from Home Accidents by Type and Age, 1956

Type of Accident	ALL AGES	0 to 4 Years	5 to 14 Years	15 to 24 Years	25 to 44 Years	45 to 64 Years	65 Years and Over
Total	28,000	5,750	1,400	650	2,100	3,100	15,000
Falls	13,600	360	70	20	250	1,000	11,900
Burns by fire, and injuries in conflagrations	5,500	1,200	600	170	880	1,100	1,550
Mechanical suffocation	1,300	1,200	30	10	20	20	20
Firearms	1,200	50	380	200	290	200	80
Poisonings, not gas	1,050	350	20	40	270	270	100
Poisonous gas	850	40	40	100	190	250	230
Other	4,500	2,550	260	110	200	260	1,120

Source: Approximations by National Safety Council, based on data from the National Office of Vital Statistics and state health departments.

511.03—097